

MARGOT S. DAMASER, Ph.D.
Department of Biomedical Engineering
Cleveland Clinic Foundation
9500 Euclid Avenue, ND20
Cleveland, OH 44195

EDUCATION

Ph.D. 1994 Bioengineering, University of California at Berkeley and San Francisco
Dissertation: *Constitutive Mechanics of the Urinary Bladder*
A.B. 1987 Engineering Sciences, *cum laude*, Harvard and Radcliffe Colleges, Cambridge, MA

ACTIVE APPOINTMENTS

The Cleveland Clinic and Case Western Reserve University (CWRU), Cleveland, OH

2013-present Full Staff, Dept. of Biomedical Engineering, Lerner Research Institute (LRI) and Glickman Urological and Kidney Institute (GUKI), Cleveland Clinic
2007-present Associate Professor, Dept of Molecular Medicine, Cleveland Clinic Lerner College of Medicine (CCLCM) and Dept of Biomedical Engineering, CWRU
2011-present Associate Professor, National Center for Regenerative Medicine, CWRU

Cleveland State University (CSU), Cleveland, OH

2006-present Adjunct Faculty and member of Graduate Faculty, Dept. of Chem & Biomed Engineering
2011-present Co-Director of CSU Applied Biomedical Engineering Ph.D. program

Louis Stokes Cleveland VA Medical Center, Cleveland, OH

21014- Senior Rehabilitation Research Career Scientist
2005-2014 Rehabilitation Research Career Scientist
2008-present Director of Res. & Sci. Affairs, RR&D Advanced Platform Technology (APT) Center

PREVIOUS EXPERIENCE

The Cleveland Clinic and Case Western Reserve University (CWRU), Cleveland, OH

2007-2013 Associate Staff, Dept. of Biomedical Engineering, LRI and GUKI, Cleveland Clinic
2005-2007 Assistant Staff, Dept. of Biomedical Engineering, LRI and GUKI, Cleveland Clinic
2005-2007 Assistant Professor, Dept of Molecular Medicine, CCLCM and Dept of Biomedical Engineering, CWRU

Hines VA Medical Center, Hines, IL

2004 Rehabilitation Research Career Scientist
1996-2004 Research Biomedical Engineer
1998-2001 Advanced Rehabilitation Research Career Development Awardee

Loyola University Stritch School of Medicine (SSOM), Maywood, IL

2002-2004 Associate Professor, Department of Urology
2000-2004 Director of Basic Science Research, Center for Female Pelvic Med. and Reconstruction,
1999-2002 Assistant Professor, Department of Urology
1996-1998 Adjunct Assistant Professor, Department of Urology

University of Illinois, Chicago, IL

2002-2004 Adjunct Associate Professor, Department of Bioengineering
1998-2002 Adjunct Assistant Professor, Department of Bioengineering

Hospital of the University of Pennsylvania, Philadelphia, PA

1994-1996 NIDDKD Postdoctoral Trainee/AFUD Fellow, Division of Urology

Lund University, Lund, Sweden

1994 Visiting Scientist, Departments of Urology and Physiology & Biophysics

AWARDS AND HONORS

- 2013 One of the top ten reviewers for *Neurourology & Urodynamics* in 2012
- 2013 Co-author on Grand Prize winner of Jack Lapides Research Essay Contest
- 2012 Best overall paper, American Urogynecology Association annual meeting
- 2012 American Medical Women's Association Gender Equity Award, CWRU School of Medicine, given to a member of the faculty who exemplifies the principle of gender equality in teaching and who promotes a gender-fair training environment
- 2012 Senior author on 2nd place winner of Jack Lapides Research Essay Contest
- 2012 Visiting Professor, Dept. of Obstet & Gynecol, Rambam Medical Center, Haifa, Israel
- 2012 Visiting Prof., Dept. of Anatomy & Cell Biology, Indiana University School of Medicine
- 2008, 2012 Senior author on 1st Place Paper in the Basic Science Paper Competition of the Society for Urodynamics and Female Urology.
- 2011 Visiting Prof., Dept of Biology, Universidad Autonoma de Tlaxcala, Tlaxcala, Mexico
- 2010 Senior author on poster winning best presentation at the AUA/SBUR Summer Research Conference on Urinary Incontinence: Integrating Basic & Clinical Research Perspectives.
- 2009 Best Basic Science Presentation of the International Continence Society annual meeting
- 2009 Visiting Prof., Urology Dept, Louisiana State Univ. Health Sci Cntr, New Orleans, LA
- 2009 Visiting Prof, Bioeng Dept.& McGowan Inst. Regen. Med., Univ. Pitt, Pittsburgh, PA
- 2007, 2009-2012 Senior author on poster winning best presentation of the session at the American Urological Association annual meeting.
- 2007, 2010 Senior author on poster winning best presentation of the session at the Society for Urodynamics and Female Urology annual meeting.
- 2007 Visiting Professor, Dept. of Pharmacol & Physiol, Drexel Univ. Coll of Med, Phila, PA
- 2006-2013 Innovator Award from the Cleveland Clinic
- 2006 Visiting Research Professor, Dept of Urology, Albany Medical College, Albany, NY
- 2004-2014 VA Rehabilitation Research Career Scientist Award
- 2004 Young Investigator Award, Society for Basic Urological Research
- 2003 Awarded Senior Fellow status, Institute of Electric and Electronic Engineers
- 2001 Eastern Paralyzed Veterans Association Scholar in Spinal Cord Injury Research
- 2000 Presidential Early Career Award for Scientists and Engineers, awarded for *Outstanding research on the human urinary bladder using mathematical modeling along with physiological and neurological studies*. This is the highest honor bestowed by the U.S. Government on young professionals at the outset of their independent research careers.
- 1998-2001 Advanced Rehabilitation Research Career Development Award, Veterans Administration
- 1994-1996 American Foundation for Urologic Disease Research Scholar
- 1994-1996 Trainee, NIH Training Grant, Division of Urology, University of Pennsylvania
- 1993-1994 President's Dissertation Year Fellowship, University of California at San Francisco
- 1992-1993 Trainee, Bioengineering NIH Training Grant, University of California at San Francisco
- 1992 Scientific Achievement Award, Achievement Rewards for College Scientists
- 1991-1992 Trainee, Systems and Integrative Biology NIH Training Grant, UC Berkeley
- 1987-1991 Award for Creativity in Engineering, National Science Foundation

TEACHING EXPERIENCE

- 2011 *Regenerative Medicine for the Lower Urinary Tract*
Guest lecture in graduate course on *Tissue Engineering*, Cleveland State University
- 2008 *Frequency Response of Urinary Catheter Manometry Systems*
Laboratory part of EBME 319, Biomedical Engineering Labs, CWRU Cleveland, OH
- 2006-present Lecture & lead discussions in various courses at CCLCM, including:
Advanced Research in Medicine, Innovations in Medicine, and Process of Discovery
- 2003-09, 2011 Faculty, *National Urology Resident Preceptorship Program in Female Pelvic Medicine & Reconstructive Surgery*, Cleveland Clinic Foundation, Cleveland, OH
- 2000-2004 *Function of the Human Body*
Loyola University SSOM, Lead Small Group Problem Solving Sessions.
- 1999 Bioengineering 594, *Structure and Function of Soft Tissues: Elasticity Analysis*.
Bioengineering Dept, Univ Illinois, Chicago, IL, Co-Taught with Arif Masud, Ph.D.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- American Physiological Society, American Society of Mechanical Engineers
- American Urogynecology Society
Member, Abstract Review Committee, 2006, 2012-13; *Member*, Best Paper Award Review Committee, 2007
- American Urological Association
- Association for Women in Science, *Vice President, Chicago Area Section*, 1999-2000
- Biomedical Engineering Society
- Engineering & Urology Society (name changed from Society for Urology and Engineering in 2003)
President, 2007-8; *Vice President*, 2003-2007; *Co-Program Chair*, 2006 Annual Meeting;
Organizer & Moderator, Session on Modeling & Simulation of the Future, 2003 Annual Meeting;
Member of Steering Committee, 2000-2009
- Institute of Electric and Electronic Engineers, Engineering in Medicine and Biology Society
Senior Fellow, 2003-present
- International Continence Society
Reviewer, Abstracts submitted for presentation at the annual meeting, 2010-present
Member, Urodynamic Equipment Committee, 2011-present
Non-Clinical Representative, Scientific Committee, 2011-2014. This position is elected by members.
- Sigma Xi
- Society for Basic Urological Research
Creator of joint SWIU/SBUR Award for Excellence in Urology Research, 2006
- Society for Neuroscience
- Society of Urodynamics and Female Urology (SUFU)
Member, Program Committee of the Annual meeting, 2009-present
Member, Editorial Board, *Neurourology and Urodynamics*, 2003-present
- Society for Women Engineers
- Society of Women in Urology
Member, Research Committee, 1997-2001, 2003-2006 (*Chair*, 2004-2006)
Member (2002-2008) & *Secretary* (2005-2008), *Board of Directors*
Creator of joint SWIU/SBUR Award for Excellence in Urology Research, 2006

ACADEMIC SERVICE

2012-2013 Member, Faculty Search Committee, CSU Dept. of Chemical & Biomedical Engineering
 2011-present Co-Director of the CSU Applied Biomedical Engineering PhD program
 2010 Organize, Advise, & Moderate Medical Student Journal Club Discussions, CCLCM
 2008-present *Director of Research & Scientific Affairs*, APT Center, Louis Stokes Cleveland VAMC
 2008-present *Chair*, Louis Stokes Cleveland VAMC Institutional Animal Care and Use Committee
 2007-2012 *Member*, Medical School Promotion Review Committee, CCLCM
 2006-2010 *Member*, Cleveland Clinic Institutional Animal Care and Use Committee (IACUC)
 2007-2008 *Member*, Research & Development Committee, Louis Stokes Cleveland VAMC
 2007 *Member*, Lerner Research Institute, Cleveland Clinic Women's Affinity Group
 2005-2007 *Member*, Louis Stokes Cleveland VAMC IACUC
 2003-2004 *Member*, Biomechanics Curriculum Committee, University of Illinois Chicago
 2001-2002 *Chair*, Hines VA Hospital Institutional Animal Care and Use Committee
 1998-2001 *Member*, Hines VA/Loyola University SSOM IACUC (*co-Chair*, 2001)
 1999-2002 *Member*, Research & Development Committee, Research Service, Hines VA Hospital
 1998-2001, 2004 *Member*, Rehabilitation R&D Scientific Review Subcommittee, Hines VA Hospital

RECENT GRANT REVIEWER, NATIONAL and INTERNATIONAL COMMITTEES

2013 Grant Reviewer, VA RR&D Small Projects in Rehabilitation Research (SPiRE)
 2012 Grant Reviewer, American Urogynecology Society Foundation
 2012 Grant Reviewer, Portuguese Foundation for Science and Technology
 2012 Grant Reviewer, Israel Science Foundation
 2011-2014 *Member*, Scientific Committee of the International Continence Society; this position is elected by the membership. The committee sets the program for the annual meeting.
 2011-present *Member*, Urodynamic Equipment Committee of the International Continence Society
 2011, 2013 Reviewer, CWRU Clinical and Translational Science Collaborative (CTSC) Pilot Grants
 2011-2012 Ad Hoc Member, Spinal Cord Injury Study Section, *Rehabilitation R&D Service*, VA
 2006, 2011-12 *Member*, Special Emphasis Panel to Review Program Project Grant (PO1), *NIH*
 2010-present *Member*, National Advisory Group, VA Research Program on animal research issues
 2010 Ad Hoc Member, NIH Urologic and Kidney Development & Genitourinary Diseases (UKGD) Special Emphasis Study Section
 2010 Ad Hoc Member, NIH Integ. & Clin. Endocrinol. & Reproduction (ICER) Study Section
 2009 Reviewer, Natural Sciences and Engineering Research Council of Canada
 2008 *Member*, O'Brien Urology Research Center Study Section, ZDK1 GRB-6, NIDDK, NIH
 2008, 2011-12 Ad Hoc Member, Surgery Study Section, *Biomedical & Laboratory R&D Service*, VA
 2007 *Chair & Member*, 3 Special Emphasis Panels to Review NIH Grants, *NIDDK, NIH*
 2006 *Member*, AUA Foundation Research Scholar Application Review Committee
 2004-2006 Charter Standing Member, NIH UKGD Study Section
 2005 Ad Hoc reviewer, *Rehabilitation R&D Service, Veterans Administration*,
 Rehabilitation Center Collaborative Grant Applications
 2004 *Member*, Detroit LA Research Grants Review Committee, Pfizer Inc.
 2003-2004 *Member*, Scientific Merit Grant Review Board, *Rehabilitation R&D Service, VA*
 2002-2003 Ad hoc member, NIH Nephrology/Urology Special Emphasis Panel (ZRG1 SSS-M 05)

MANUSCRIPT REVIEWER

since 2013 *PlosOne*
 since 2012 *British Journal of Gynecology, Medical Engineering and Physics, Obstetrics & Gynecology, Female Pelvic Medicine & Reconstructive Surgery, British Journal of Gynecology, International Journal of Urology, Journal of Biomedical Research*
 since 2011 *IEEE Transactions on Neural Systems and Rehabilitation Engineering, Journal of Theoretical Biology, European Journal of Obstetrics & Gynecology and Reproductive Biology, BMC Medicine*
 since 2009 *Cell Transplantation, Journal of Pelvic Medicine & Surgery, Reproductive Science, Neurogastroenterology & Motility, Endocrinology*
 since 2006 *BMC Urology, Experimental Neurology, Annals of the New York Academy of Science, Medical & Biological Engineering & Computing*
 since 2005 *Physics in Medicine and Biology, BJU International, Physiological Measurement*
 since 2004 *Diabetes, Molecular and Cellular Biochemistry, Neuroscience Letters, Annals of Biomedical Engineering, American Journal of Obstetrics and Gynecology*
 since 2003 *American Journal of Physiology*
 since 2002 *Life Sciences*
 since 2001 *Urology, International Urogynecology Journal and Pelvic Floor Dysfunction*
 since 1999 *IEEE Transactions on Biomedical Engineering*
 since 1997 *Journal of Urology, Journal of Biomechanics,*
 since 1997 *Scandinavian Journal of Urology and Nephrology*
 since 1996 *Neurourology & Urodynamics*

SELECTED OTHER PROFESSIONAL SERVICE

2012 Member, Review Committee, *Society for Urodynamics and Female Urology* annual mtg
 2011-present Member, Advisory Council of UC San Francisco NIH Specialized Center of Research (SCOR) on Lower Urinary Tract Function in Women
 2011, 2013 Chair, Abstract Review Committee, *Innovating for Continence* biennial meeting
 2011 Member, Review Committee, *International Soc. of Biomechanics* 2011 annual meeting
 2010-present Member, Review Committee, *International Continence Society* annual meeting
 2010-present Member, Review Ed Board of *Frontiers in Pharmacotherapy of Urogenital Disorders*
 2010 Program Chair, AUA Foundation Summer Research Conference on Incontinence
 2008-present Member, Sci. Program & Abstract Review Committees, *Society for Urodynamics and Female Urology* Basic Science meeting
 2008-present Member, Scientific Advisory & Program Committees, *Innovating for Continence*
 2008-2010 Member, Editorial Board, *Urotoday International Journal*
 2005 Associate Editor, *Journal of Rehabilitation Research and Development*
 2005-2010 Member, Abstract Review Committee, *Engineering and Urology Society*
 2003-present Member, Editorial Board, *Neurourology and Urodynamics*
 2009 Invited participant, *Seeking New Dimensions and Strategies for Women's Health Research*, NIH Office of Women's Health Research.
 2008-2009 Track Chair, *Emerging Technology, Biomedical Engineering Society* 2009 meeting
 2008 Member, Scientific Program Committee, *North Am. Congress on Biomechanics*, 2008
 2006-2010 Review abstracts submitted for presentation at the Cleveland Clinic Research Day
 2007-2008 Member, International Scientific Committee, *Reproductive Bioengineering*, Austria 2008
 2006, 2012 Member, Abstract Review Committee, *American Urogynecology Society*
 2006 Member, International Scientific Committee, *5th World Congress of Biomechanics*
 2004 Participant, *Toward a VA Women's Health Research Agenda* conference
 2002 Member, Expert Panel on Basic Science and Translational Research in Female Pelvic Floor Disorders, National Institute of Child Health and Human Diseases, NIH

RESEARCH GRANTS**Current Grants**

- 7/1/10 – 6/30/14 Co-Investigator (PI is Y.S. Lee, Ph.D.), 5% effort, R01 NS069765-03
Recovery of bladder reflexes and nerve regeneration after spinal cord injury
- 7/1/10 – 6/30/15 Principal Investigator, 20% effort, NIH RO1 HD059859-04
Stem Cell Homing for Treatment of Female Pelvic Floor Disorders
- 10/1/10 – 9/30/14 Principal Investigator, 20% effort, VA RR&D Merit Review, B7225R
Regenerative Adjuvant Therapy for Stress Urinary Incontinence
- 2/1/12 – 1/31/14 Principal Investigator, 10% effort, Beechtree Laboratories, Inc.
Mechanism of Action of Beechtree Medical Therapy for Mixed Incontinence
- 12/1/10 – 12/31/14 Principal Investigator, 15% effort, State of Ohio 3rd Frontier Program
OTFWPP 10519, *Clinically Applied Rehabilitation Engineering (CARE) project*
- 4/1/12 – 3/31/16 Principal Investigator, 20% effort, VA RR&D Merit Review, 1I01RX000443-01
Wireless Implantable Monitor for Improved Neuromodulation
- 12/1/12 – 4/30/14 Principal Investigator, 10% effort, Fate Therapeutics, Inc.
Assessment of Efficacy of Single Administration of Dose Escalation of two Protein Forms to the External Urethral Sphincter (EUS) in an Induced Rat Model of SUI
- 10/1/13 – 9/30/18 Co-Investigator (PI is M. Zutshi, M.D.), 10% effort
Department of Defense, Air Force Institute of Regenerative Medicine (AFIRM) 2
Engineered scaffold and cell therapy for treatment of fecal incontinence due to defects in the anal sphincter.

Pending Grants

- 10/1/13 – 9/30/15 Co-Investigator and PI of subcontract (PI is Ronghua Zhuge, Ph.D.), 5% effort
NIH NIDDK R01 DK098586-01, *Function and Regulation of Elemental Calcium Signaling in Urethral Smooth Muscle.*
- 1/1/14 – 12/31/17 Principal Investigator, 25% effort, VA RR&D Merit Review
Electrical stimulation facilitation of recovery from childbirth injury.
Received score of 161, Percentile 9.1%.
- 7/1/14 – 6/30/16 Principal Investigator (co-PI is A. Ramamurthi, Ph.D.), 10% effort
1R21HD078820-01, *Regenerative Therapy for Pelvic Organ Prolapse.*

RESEARCH GRANTS, Continued**Selected Previous Grants (most recent 10 years only)**

- 7/1/11 – 6/30/13 Co-Principal Investigator (PI is C. Moore, M.D.), 5% effort, Pfizer/AUA Fndation
The Effects of Vaginal Delivery on Stem Cell Homing Factors in Obese and Non-obese Women in the Development of Stress Urinary Incontinence.
- 6/1/12 – 5/31/13 Principal Investigator, 10% effort, Eli Lilly, Co.
PDE4/5 Inhibitor for the Treatment of Overactive Bladder
- 4/1/00 – 3/31/13 Principal Investigator, 20% effort, NIH 2R01 HD038679-11, competitive renewal
Mechanisms of Incontinence Following Vaginal Distension.
- 7/1/09 – 6/30/11 Mentor, American Urological Association Foundation Postdoctoral Scholarship
Electrostimulation After Delivery Injury to Treat Urinary Incontinence
PI: Hai-Hong Jiang, M.D., Ph.D.
- 2/1/10 – 8/31/11 Principal Investigator, 10% effort, National Center for Stem Cell Research,
Stem Cell Therapy for Stress Incontinence
- 10/1/07 - 9/30/10 Principal Investigator, 20% effort, VA RR&D Merit Review B4934R
Wireless Implantable Pressure Monitor for Clinical Applications
- 7/1/06 – 6/30/10 PI of subcontract, PI: Linda Brubaker, M.D. 5% effort, 5 K24 DK064044
Patient-Oriented Models for Urinary Function in Women
- 10/1/06 – 9/30/09 Principal Investigator, 25% effort, VA RR&D Merit Review B4454R
Recovery of Stress Urinary Incontinence in Diabetes
- 9/1/07 – 2/13/09 Principal Investigator, 3 R01 HD38679-08S1,
NIH Research Supplements to Promote Diversity for A.M. Gustilo-Ashby, M.D.
Mechanisms of Incontinence Following Vaginal Distension.
- 1/1/09 – 12/31/09 Principal Investigator, 15% effort, TDOC, LLC.
Performance of Pressure-sensing Catheters during Simulated Urodynamic events
- 8/1/07 – 12/31/08 Principal Investigator, 10% effort, American Medical Systems, Inc.
Feasibility of Electrical Stimulation for Fecal Incontinence in a Rat Model
- 11/1/07 – 10/31/08 Principal Investigator, 5% effort, TDOC LLC
Mechanical Characterization of Air-charged and Water-Filled Catheters

RESEARCH GRANTS, continued**Selected Previous Grants (most recent 10 years only)**

- 9/1/05 – 8/31/07 Principal Investigator, 20% effort, NIH 1 R21 DK070905-01
Mechanisms of Female Incontinence in Diabetes
- 4/1/00 - 3/31/06 Principal Investigator, 25% effort, NIH 7 RO1 HD38679-06
Mechanisms of Incontinence Following Vaginal Distension.
- 4/1/03 – 9/30/06 Principal Investigator, 50% effort, VA RR&D Merit Review
Neurotherapeutic Effects of Estrogen on Injured Spinal Motoneurons
- 10/1/00-9/30/05 Principal Investigator, Presidential Early Career Award for Scientists and Engineers. *In Support of Outstanding Research on the Human Urinary Bladder using Mathematical Modeling along with Physiological and Neurological Studies.*
- 7/1/01 – 9/30/04 Participating Investigator, 5% effort, VA RR&D REAP
Neuroprotective Effects of Estrogen on Injured Spinal Motoneurons
PI: Kathryn J. Jones, Ph.D.
- 4/1/04 – 9/30/04 Principal Investigator, 10% effort, University of Zurich
Effects of Reproductive Hormones on Voiding in the Female Rat
- 4/1/01 - 3/31/03 Principal Investigator, 40% effort, VA RR&D Merit Review (B2472R)
Steroid Hormone Adjuvant Therapy for Stress Urinary Incontinence.

CONSULTANT POSITIONS (most recent 5 years only)

- 2013 Member, First Urology Horizon Scanning Advisory Board, Astellas, Inc.
- 2012-16 Consultant, UC San Francisco NIH Specialized Center of Research (SCOR) on Lower Urinary Tract Function in Women
- 2012-13 Consultant, 1 R21 EB014442-01, *Micropackage Technology for Implantable Biomedical Microsystems*, PI: Wen Ko, Ph.D., Case Western Reserve University, Cleveland, OH
- 2008 Consultant, American Medical Systems, Minneapolis, MN
- 2007-8 Consultant, TDOC, LLC, Wilmington, DE
- 2005-7 Consultant, NIH R21 DK070004-01, *Mechanisms of Vaginal Sling Effects on Continence*
Principal Investigator: Firouz Daneshgari, Cleveland Clinic Foundation, Cleveland, OH
- 2004-9 Consultant and PI of Subcontract, NIH 1K24 DK064044-01A1
Development of Patient-Oriented Model for Urinary Function in Women
Principal Investigator: Linda Brubaker, M.D., Loyola University SSOM, Maywood, IL

STUDENTS PRESENTLY SUPERVISED**Present Graduate Students**

- 2011-present Ali Borazjani, Ph.D. Student in Applied Biomedical Eng., Cleveland State University
Department of Chemical and Biomedical Engineering. *Effect of Stem Cells on Pelvic Floor Biomechanics in a Mouse Model of Pelvic Floor Disorders*
Awarded National Science Foundation (NSF) Graduate Research Fellowship, 2012-2015
- 2011-present Qixiang Rex Song, M.D., Ph.D. Student, Second Military Medical University, Shanghai, China. *Neuromodulation to Facilitate Recovery of Childbirth Injuries.*
- 2012-present Kangli Deng, M.D. Ph.D. Student, Tongji Medical College of Huazhong University of Science and Technology, Wuhan City, China. *Stem-Cell Mediated Therapeutic Approach to Treat Stress Urinary Incontinence.*
- 2013-present Kristine Janssen, Ph.D. Student, University Medical Center, Utrecht, The Netherlands
Mechanism of Stem-Cell Mediated Therapy for Stress Urinary Incontinence

Present Clinical Research Fellows

- 2010-present Bruna Couri, M.D., Urogynecology Research Fellow, Cleveland Clinic
Stem Cell Homing Cytokines in Female Pelvic Floor Disorders
Awarded Travel Award to 2011 AUA Foundation/NIDDK/SBUR Basic Sci. Symposium
Awarded CCF BME Travel Award to present at *American Urogynecologic Society*, 2012
Recognition award from CCLCM for Excellence in Teaching Medical Students, 2013
- 2012-present Javier Pizarro-Berdichevsky, M.D., Urology Research Fellow, Cleveland Clinic
Mesenchymal Stem Cell Homing in a LOXL1 KO Mouse Model of Pelvic Organ Prolapse
- 2013-present Elizabeth Ferry, M.D., Urology Resident, Case Western Reserve School of Medicine
Supervised 12 month Urology Research Rotation.
Cystoscopic implantation of implantable pressure sensors in cadaveric pigs

Present Undergraduate Students

- 2012-present Pooja Sheth, Biomedical Engineering Undergraduate Student, CWRU, Cleveland, OH
Novel pharmacologic therapies for overactive bladder and stress urinary incontinence

STUDENTS FORMERLY SUPERVISED**Professors (Sabbatical Year)**

- 2010-2011 Yolanda Cruz Gómez, Ph.D., Professor, Centro Tlaxcala de Biología de la Conducta, Universidad Autónoma de Tlaxcala, México. *Animal Model of Urethral Dysfunction*

Former Research Associate

- 2010-2013 Hai-Hong Jiang, M.D., Ph.D. Research Associate, BME Dept., Cleveland Clinic
Electrostimulation After Delivery Injury to Treat Urinary Incontinence.
Awarded Best Poster of Session, AUA Annual Meeting, 2010.
Awarded Best Poster Presentation of Meeting, *AUA/SUFU Summer Research Conference on Urinary Incontinence: Integrating Basic & Clinical Research Perspectives*, 2010
Awarded Cleveland Clinic Research Projects Committee grant, 2012-2013, \$25k, entitled *Brief Electrical Stimulation using Wire Electrodes Embedded in Mesh for Incontinence.*

Former Graduate Students

- 2010-2011 Raúl Juárez Mendieta, MSc. Student, Centro Tlaxcala de Biología de la Conducta, Universidad Autónoma de Tlaxcala. Tlaxcala, México.
Animal Model of Urethral Dyysfunction

STUDENTS FORMERLY SUPERVISED, Continued**Former Graduate Students, continued**

- 2010-2011 César F. Pastelín Rojas, M.Sc. Ph.D. Student. Institute of Neuroetology, University of Veracruz, Xalapa, Veracruz, México.
Animal Model of Urethral Dysfunction
- 2009-2011 Bradley Gill, M.S., Graduate Student, Case Western Reserve University
Department of Biomedical Engineering. Awarded M.S. in 2011
Neurotrophin Therapy Improves Recovery of the Neuromuscular Continence Mechanism Following Simulated Birth Injury in Rats
- 2005-2010 Tom Spirka, Ph.D., Graduate Student, Cleveland State University
Department of Chemical and Biomedical Engineering
Functional Virtual Reality Model of the Normal Female Pelvic Floor
Presently Senior Design Engineer, University of Washington, Seattle, WA
- 2005-2009 Xiaolong Li, Ph.D., Graduate Student, Cleveland State University
Ph.D. Thesis advisor. *Imaging of the Female Pelvic Floor: Semi-Automated Creation of Virtual Reality Models*
Department of Chemical and Biomedical Engineering
Presently Senior Research Scientist, Medtronic Inc., Los Angeles, CA
- 2000-2004 Nikhil Balakrishnan, M.S., Bioengineering Dept., University of Illinois, Chicago
M.S. Thesis Advisor. *Biocompatibility of Nitinol and Stainless Steel in the Bladder: an Experimental Study*. Awarded M.S. in Bioengineering, 2004
Presently Medical Resident, University of Illinois, Chicago
- 2000-2002 Mansi Parikh, M.S., Bioengineering Dept., University of Illinois, Chicago
M.S. Thesis Advisor. Awarded M.S. in Bioengineering, 2002
Virtual Reality Model of the Normal Female Pelvic Floor: Proof of Concept
Awarded student travel award, 2002 meeting of the IEEE EMBS, Houston, TX
Presently Research Perfusion Technologist, Chicago, IL
- 2000-2001 G. Matthew Thornton, M.S., Anatomy Dept., Rush Medical College, Chicago
Member, Master's Thesis Committee. Thesis Advisor: James M. Kerns, Ph.D.
Morphology of Neuromuscular Junction in the Female Rat External Urethral Sphincter
- 1999-2000 Derek Kane, M.S., Anatomy Department, Rush Medical College, Chicago
Member, Master's Thesis Committee. Thesis Advisor: James M. Kerns, Ph.D.
Characterization of the Motor Pudendal Nerve Branches in the Female Rat,
Awarded 1st place, poster contest, Rush College of Medicine Research Day, 2001
The Role of Estrogen on the External Urethral Sphincter Following a Pudendal Nerve Crush, Awarded 2nd place, poster contest, Rush College of Medicine Research Day, 2002
Presently Surgery Resident, Rush College of Medicine, Chicago, IL

Former Postdoctoral Fellows

- 2002-2005 Yasmin Ahmed, Ph.D., Associate Investigator (post-doctoral fellow), VA RR&D REAP
Neuroprotective Effects of Estrogen on Injured Spinal Motoneurons
Presently Director of Research, Oakbrook Fertility Center, Oak Brook, IL
- 2006-2010 Hai-Hong Jiang, M.D., Ph.D. postdoctoral fellow, BME Dept., Cleveland Clinic
Electrostimulation After Delivery Injury to Treat Urinary Incontinence.
Winner of Basic Science Prize Essay, *Society for Urodynamics & Female Urology*, 2008
Awarded AUA Foundation Postdoctoral Scholarship award, 2009-2011
Presently Research Associate, Biomedical Engineering Dept., Cleveland Clinic

STUDENTS FORMERLY SUPERVISED, Continued**Former Clinical Research Fellows**

- 2012-2013 Brittaney Wilson-Harris, Medical Student, Cleveland Clinic Lerner College of Medicine
Supervised 1 year Research Rotation, *Treating Female Pelvic Floor Disorders with Mesenchymal Stem Cell Conditioned Medium*
Awarded AUA Foundation Herbert Brendler, MD Summer Research Fellowship, 2012
- 2012-2013 Maude Carmel, M.D., Female Urology Fellow, Cleveland Clinic
Mechanisms of Accelerated Recovery of Urinary Incontinence by Treatment with Mesenchymal Stem Cells after Simulated Childbirth in Rodents
Awarded a Scholarship from the Foundation of the Quebec Urological Association, 2012
- 2012-2013 Brian Marks, M.D., Female Urology Fellow, Cleveland Clinic
Awarded Cleveland Clinic Research Projects Committee grant, 2012-2013, entitled *Role of Elastin in the Functional Recovery of the Rat Urethra following Simulated Childbirth Injury*
- 2009-2012 Andrew Lenis, Medical Student, Case Western Reserve University, Cleveland, OH
Supervised research project during summers & 1 year leave of absence
Treating Genetic Disease with Stem Cells in a Mouse Model of Pelvic Floor Disorders
Awarded AUA Foundation Herbert Brendler, MD Summer Research Fellowship, 2011
Presently Urology Resident, University of California, Los Angeles, CA
- 2011 Emily Holthaus, Medical Student, CCLCM, Cleveland, OH
Supervised summer research project
Stem Cell Homing in a Neurogenic Animal Model of Simulated Childbirth Injuries
- 2009-2011 Charuspong Dissaranan, M.D., Female Urology Fellow, Cleveland Clinic
Facilitation of Recovery with Stem Cells in Models of Simulated Childbirth Injuries
2nd place winner, 2012 Jack Lapidus Essay Contest on Urodynamics and Neurourology Research. Currently Urologist, Bangkok, Thailand
- 2010-2011 James Steward, Medical Student, Case Western Reserve University, Cleveland, OH
Supervised summer research project
Effects of Electrical Stimulation and BDNF Supplementation on upregulation of BDNF in the External Urethral Sphincter after Simulated Childbirth Injury
Received Medical Student Training in Aging Research (MSTAR) Award from the American Foundation for Aging Research (AFAR) to fund summer research project
Awarded Best Presentation of Session, American Urological Association, 2011
Currently Urology Resident, Thomas Jefferson University, Philadelphia, PA
- 2010-2011 Kamran Sajadi, M.D., Female Urology Fellow, Cleveland Clinic
Pilot Study to Investigate a Novel Model of Pudendal Nerve Stretch in Rats
Awarded Research Program Committee Funding by Cleveland Clinic, 2010
Currently Assistant Professor, Oregon Health & Science University, Urology Dept.

STUDENTS FORMERLY SUPERVISED, Continued**Former Clinical Research Fellows, continued**

- 2007-2010 Bradley Gill, Medical Student, Cleveland Clinic Lerner College of Medicine
Supervised 10 week Basic Research Rotation (2007)
Supervised 1 year Research Rotation (2009-2010): *Effects of Exogenous Supplementation of BDNF in the Recovery of Pudendal Nerve Injury*.
Finalist for the Delsys Award, *North American Congress on Biomechanics*, 2009
Awarded Best Poster of Session, SUFU Annual Meeting, 2010
Innovator Award from Cleveland Clinic: "In recognition of commitment to collaborate with Cleveland Clinic to bring new technology to patients worldwide," 2010
PI of a supplemental study to an NIH NICHD multi-center clinical trial investigating intra/peri-operative predictors of InterStim implantation and efficacy, 2011
Winner of Basic Science Prize Essay, *Society for Urodynamics & Female Urology*, 2012
Winner of 2012 Leonard Tow Humanism in Medicine Award from Arnold P. Gold Fndn
Currently Urology Resident, The Cleveland Clinic, Cleveland, OH
- 2006-2011 Levilester Salcedo, M.D., Research Fellow, Colorectal Surgery Dept., Cleveland Clinic
Anal physiology and healing post injury of the anal sphincter in a rat model.
Awarded Research Program Committee Funding by Cleveland Clinic, 2006
- 2008-2009 Wesley Kong, M.D., Female Urology Fellow, Cleveland Clinic
Neuromuscular junction damage and reinnervation after simulated childbirth injuries
Awarded Travel Award by Society of Urodynamics and Female Urology (SUFU), 2009
Awarded Best Poster of Session, AUA Annual Meeting, 2008.
Currently Staff Physician, El Camino Urology Medical Group, Mountain View, CA
- 2006-2009 A. Marcus Gustilo-Ashby, M.D., Urogynecology Fellow, Cleveland Clinic Foundation
Supervised UroGynecology Research Rotation and later Research Fellowship
Elastic Fiber Homeostasis and Female Pelvic Floor Disorders: A genetic mouse model and Mechanisms of Incontinence Following Vaginal Distension.
Awarded NIH Research Supplement to Promote Diversity, 2007-2009
Awarded 1st place, Basic Science Presentation, Cleveland Ob/Gyne Society, 2007
Awarded Research Program Committee Funding by Cleveland Clinic, 2006
Awarded Educational Grant from June Allyson Foundation, 2006
Currently Medical Director, Pelvic Control Center, Dayton, OH
- 2007-2008 Justin Bohrer, Medical Student, Cleveland Clinic Lerner College of Medicine
Member of Thesis committee for year long research project
Incidence of Pelvic Nerve Injury Following Gynecologic Surgery
Currently Obstetrics & Gynecology Resident, University of Hawaii, Honolulu, Hawaii
- 2006-2009 Hardeep Phull, Medical Student, Cleveland Clinic Lerner College of Medicine
Supervised 10 week Basic Research Rotation, 2006: *Acute Response of the Urethra and Vagina to Vaginal Distension*
Chair, Thesis Committee for year long research project, 2008-9: *Testing of an Electrochemical DNA Biosensor for Bacterial Pathogen Detection*
Currently Medical Resident, Scripps Res Inst, San Diego, CA, Physician-Scientist Track
- 2006-2008 Chi Chung Grace Chen, M.D., Urogynecology Fellow, Cleveland Clinic Foundation
Supervised UroGynecology Research Rotation
Interactive Multimedia-Based Three Dimensional Model of the Female Pelvis
Awarded 2006 APGO/Ortho-McNeil Undergraduate Medical Education Research Award
Presently Assistant Professor of Gynecology, Johns Hopkins Univ School of Medicine

STUDENTS FORMERLY SUPERVISED, Continued**Former Clinical Research Fellows, continued**

- 2008 George Cater, Medical Student, Cleveland Clinic Lerner College of Medicine
Supervised 10 week Basic Research Rotation
Biomechanical Characterization of Urethral Pressure Measurement Systems
- 2006-2007 Hadley Wood, M.D., Urology Resident, Cleveland Clinic Foundation, Cleveland, OH
Supervised 12 month Urology Research Rotation.
Testicular dysgenesis in LOXLI-deficient male mice
Awarded Elisabeth Pickett Research Award, *Society of Women in Urology*, 2007
Currently Clinical Faculty, Glickman Urological and Kidney Institute, Cleveland Clinic
- 2006-2007 Una Lee, M.D., Urology Resident, Cleveland Clinic Foundation, Cleveland, OH
Supervised 12 month Research Rotation
Elastic Fiber Homeostasis and Female Pelvic Floor Disorders: A genetic mouse model
Awarded Resident Travel Award & Basic Science Poster Award, SUFU, 2007
Awarded 2nd place, Resident Research Presentation, Ohio Urological Society, 2007
Currently Assistant Prof. of Urology, Virginia Mason Medical School, Seattle, WA
- 2005-2006 Lynn Woo, M.D. Urology Resident, Cleveland Clinic Foundation, Cleveland, OH
Supervised 12 month Urology Research Rotation.
Vaginal Distension Induced Ischemia and Stem Cell Homing.
Awarded Resident Travel Award, Society of Urodynamics and Female Urology, 2006
Awarded Research Program Committee Funding by Cleveland Clinic, 2006
Currently Asst Prof., Ped. Urology, Rainbow Babies and Children Hosp, Cleveland, OH
- 2005-2006 Courtenay Moore, M.D., Urology Fellow, Cleveland Clinic Foundation
Co-Preceptor with Firouz Daneshgari, M.D. of 12 month Research Rotation
Mechanisms of Female Urinary Incontinence in Diabetes
Awarded AFUD Research Scholar Award, 2005
Currently Faculty, Glickman Urological and Kidney Institute, Cleveland Clinic
- 2004-2005 Ja-Hong Kim, M.D., Urology Resident, Cleveland Clinic Foundation
Co-Preceptor with Firouz Daneshgari, M.D. of 12 month Research Rotation
Combined Effects of Diabetes Mellitus and Vaginal Distension on Lower Urinary Tract
Awarded Research Program Committee Funding by Cleveland Clinic, 2006
Currently, Assistant Prof., Dept. of Urology, University of California, Los Angeles, CA
- 2004 Ronald Kim, Medical Student, University of Illinois School of Medicine
Striated Muscle and Nerve Fascicle Distribution in the Normal Female Rat Urethra
Currently Urology Resident, University of Iowa Medical School, Iowa City, IA
- 2004 Susi Kull, DVM., Veterinary Research Fellow, Section of Obstetrics and Reproduction
University of Zurich, Zurich, Switzerland
Effects of Reproductive Hormones on Voiding in the Female Rat
Currently Faculty, University of Zurich Veterinary Medical School, Zurich, Switzerland
- 2003-2004 Adonis Hijaz, M.D., Urology Fellow, Cleveland Clinic Foundation, Cleveland, OH
Co-Preceptor with Firouz Daneshgari, M.D. of 1 year Research Rotation
Role of Intact Sling in Management of Stress Urinary Incontinence in a Rat Model
Currently Associate Professor of Urology, University Hospitals, Cleveland, OH

STUDENTS FORMERLY SUPERVISED, Continued**Former Clinical Research Fellows, continued**

- 2003-2004 James Whiteside, M.D., Urogynecology Fellow, Cleveland Clinic Fndn., Cleveland, OH
Mentored 6 month Urogynecology Research Rotation. *The Effect of Relaxin on Neuroregeneration and Urinary Incontinence Following Pudendal Nerve Crush*
Awarded June Allyson Foundation Award, 2003
Currently Associate Prof., Dept. of Gynecology, U. Mass Med School, Dartmouth, MA
- 2002-2003 Helen Ahn, M.D., Urology Resident, LUC Stritch School of Medicine
Supervised 12 month Urology Research Rotation. *The Effect of Pudendal Nerve Injury on Neuroanatomy and Urinary Incontinence*
- 2001 Kim Kenton, M.D., Urogynecology Fellow, LUC Stritch School of Medicine
Supervised Urogynecology Research Rotation; *The Effect of Pressure During Vaginal Distension on Neuroanatomy and Urinary Incontinence*
Currently Associate Prof., Dept. of Gynecology, Loyola University SSOM, Maywood, IL
- 2000-2001 Jennifer Peters, M.D., Urology Resident, LUC Stritch School of Medicine
Supervised 8 month Urology Research Rotation. *Short-Term Effects of Ovariectomy and Estrogen Replacement on Serum Estrogen Levels and Steroid Receptors in Female Rat*
Awarded Elisabeth Pickett Research Award, *Society of Women in Urology*, 2001
Currently Urologist, Tucson, AZ
- 1999-2000 Tracy W. Cannon, M.D., Urology Resident, LUC Stritch School of Medicine
Supervised 8 month Urology Research Rotation
Effects of Vaginal Distension on Stress Urinary Incontinence
Awarded Elisabeth Pickett Research Award, *Society of Women In Urology*, 2000
Awarded first prize, Hines/LUC Stritch School of Medicine poster presentation, 2000
Awarded first prize, Jones Resident Essay Contest National Medical Association, 2000
Currently Urologist, Dallas, TX
- 1998-1999 Fernando Kim, M.D., Urology Resident, LUC Stritch School of Medicine
Supervised 8 month Urology Research Rotation
The Neural Basis of Stress Urinary Incontinence
Currently Professor, Dept. of Urology, Univ. of Colorado Med. School, Denver, CO
- 1997-1998 Kyoko Sakamoto, M.D., Urology Resident, LUC Stritch School of Medicine
Supervised 8 month Urology Research Rotation
Nerve Regeneration and Voiding Behavior after Pudendal Nerve Crush in Female Rats.
Awarded Elisabeth Pickett Research Award, *Society of Women In Urology*, 1998
Awarded first prize, basic research, *Chicago Urologic Association*, 1999
Awarded Pfizer Scholar in Urology Award, 1999
Currently Associate Prof., Dept. of Urology, University of California, San Diego, CA
- 1996-1997 Greg Andros, M.D., Urology Resident, LUC Stritch School of Medicine
Co-Supervised 8 month Urology Research Rotation with Jim Walter, Ph.D.
Home Bladder Pressure Monitoring in Children with Myelomeningocele
Awarded first prize, clinical research, *Chicago Urologic Association*, 1997
Currently Urologist, Chicago, IL

Former Undergraduate Students (most recent only)

- 2012 Michela Schwann, undergraduate student, University of Waterloo, Waterloo, ON Canada
Stem Cell Homing in Lysyl Oxidase-Like 1 Knockout Mice

STUDENTS FORMERLY SUPERVISED, Continued**Former Undergraduate Students (most recent only), continued**

- 2011 Aharon Fireman, undergraduate student, Yeshiva University, New York, NY
Stem Cell Homing Cytokines after Pup Delivery in Lysyl Oxidase-Like 1 Knockout Mice
Awarded ENGAGE fellowship, from the National Center for Regen. Med., 2011
- 2011 Hilary Wickliffe, undergraduate student, CA Polytech State Univ, San Luis Obispo, CA
Quantitative Analysis of Electromyography and Electroneurography Data
Presently, undergraduate student, CA Polytech State Univ, San Luis Obispo, CA
- 2010-2011 Michelle Cruz, undergraduate student, Rensselaer Polytechnic Institute, Troy, NY
Department of Biomedical Engineering
Research Experience for Undergraduates, CCF/NSF 12 mos. internship
Chemoluminescence Screening of Stem Cell Homing after Simulated Childbirth Injury
- 2009 Hassan Awada, undergraduate student, University of Michigan, BME Department
Research Experience for Undergraduates, CCF/NSF 6 mos. internship
Performance of Pressure-Sensing Catheters During Simulated Urodynamic Events
Presently Biomedical Engineering Undergraduate, Univ. of Pittsburgh, Pittsburgh, PA
- 2008-2010 Nick Szuyge, undergraduate student, Case Western Reserve University
Department of Biomedical Engineering, *Biomechanics of Bladder Submucosa*
- 2008 Jessica Clemons, undergraduate student, University of Akron, BME Department
Research Experience for Undergraduates, CCF/NSF 6 mos. internship
Quantification of EUS Motor Units after Nerve and Muscle Injury
- 2007-2009 Mitchell Cooper, undergraduate student, CWRU, Dept. of Biomedical Engineering
Characterization of the Compliance and Frequency of Fluid-Filled Catheter Systems
Awarded Case Alumni Association travel award to present at 2007 BMES meeting
Awarded Case Western SOURCE travel grant to present at 2009 SUFU meeting
Awarded 2nd prize for presentation quality at 2009 Case Western SOURCE symposium
Presently Graduate Student, Dept. of Biomedical Engineering, Cornell University, NY
- 2007-2008 James Steward, undergraduate student, John Carroll University
Dept. of Biology, *Comparison of External Urethral Sphincter Electromyogram measured using Parallel, Concentric, and Wire Bipolar Electrodes*
Presently Urology Resident, Thomas Jefferson University, Philadelphia, PA
- 2007-2009 Jonathon Glaab, undergraduate student, Dept. of Biochemistry, John Carroll University
Dept. of Biology, *Quantification of EMG after Nerve Injury*
Presently Medical Student, Medical College of Ohio, Toledo, OH
- 2005-2007 Nathaniel Franley, undergraduate student, John Carroll University
Mechanisms of Female Incontinence in Diabetes
Awarded Summer Internship from Diabetes Association of Greater Cleveland, 2006
Presently Resident, Family Medicine, The Cleveland Clinic, Cleveland, OH
- 2005-2007 Bradley Gill, undergraduate student, CWRU, Dept. of Biomedical Engineering
Research Experience for Undergraduates (REU), NIH summer program, 2005
Investigation of Conductance Method of Intravesical Bladder Volume Measurement
Travel grants from CWRU and Cleveland Clinic to present research results, 2006
Jose Ricardo Alcala Memorial Award, for biomedical engineering research, 2007
P.G. Jerry Lind Award, for making a significant contribution to campus life, 2007
John L. Fuller '36 Award from the Case Alumni Association, presented to the most outstanding graduating senior of the Case School of Engineering.
Presently Urology Resident, the Cleveland Clinic, Cleveland, OH

RECENT SCIENTIFIC SESSION MODERATOR, ORGANIZER, & PROGRAM CHAIR

- 2013 Chair**, Workshop: *Lower Urinary Tract Biomechanics: Physiological & Clinical Implications*, International Continence Society annual meeting, Barcelona, Spain
- Moderator**
Basic Science Moderated Poster Session 3: Cell & Tissue Interactions
- Moderator**
Biomedical Technological Advances, Society for Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction (SUFU), Las Vegas, NV
- 2012 Moderator**
Neurophysiology III Moderated Poster Session, International Continence Society, Beijing, China
- Moderator**
Presentations by NIH NIDDK O'Brien Urology Research Centers
Society for Urodynamics & Female Urology (SUFU), New Orleans, LA
- 2011 Session Chair & Moderator**
Connective Tissue in Pelvic Organ Prolapse & Urinary Incontinence
Society for Urodynamics & Female Urology (SUFU), Scottsdale, Arizona
- 2010 Chair**
AUA Foundation & Society for Basic Urology Research Summer Research Conference on Incontinence
- Moderator**
Lower Urinary Tract Biomechanics Panel Session
Society for Urodynamics & Female Urology (SUFU), St. Petersburg, FL
- 2009 Track Chair & Moderator**
New Frontiers, Biomedical Engineering Society, Pittsburgh, PA
- Moderator**
Basic Science Poster Session, Society for Urodynamics & Female Urology, Las Vegas, NV
- Moderator**
Basic Science Session, NIDDK New Research Directions for Urinary Incont., Bethesda, MD
- 2008 Co-Moderator**
Basic Science Poster Session, Society for Urodynamics and Female Urology (SUFU), Miami, FL
- Session Chair & Moderator**
Pelvic Floor Biomechanics Session, Reproductive Bioengineering, Kuhtai, Austria.

RECENT INVITED TALKS

2013 *Regenerative Medicine in Urology*

Wireless Catheter-Free Sensing of Bladder Pressure

Astellas Medical Europe, Leiden, Netherlands

Stem Cell-Based Therapy for Stress Urinary Incontinence

Department of Biology, Geology & Environmental Sciences, CSU, Cleveland, OH

Technology for wireless catheter-free sensing of bladder pressure

MedTech Innovations Conference, San Diego, CA

Can we use Predictive Models to Prevent Pelvic Floor Disorders? An Introduction to Biomechanics and the Finite Element Method.

International Continence Society annual meeting, Barcelona, Spain

Stem cell and tissue engineering research--where are we?

Workshop: *Tissue Engineering Therapy for the Lower Urinary Tract -- the potential and hurdles* International Continence Society annual meeting, Barcelona, Spain

Overview of Lower Urinary Tract Biomechanics

Workshop: *Lower Urinary Tract Biomechanics: Physiological & Clinical Implications* International Continence Society annual meeting, Barcelona, Spain

Pathophysiology of Stress Urinary Incontinence and Preliminary Results of Fate Study

Fate Therapeutics, Inc., San Diego, CA

Highlights of the 2012 International Continence Society Meeting

Society for Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction
Las Vegas, NV

Gaining Corporate Support for Your Laboratory

Panelist in Faculty Workshop for Lerner Research Inst., Cleveland Clinic, Cleveland, OH

Insights into Lab Management from over 15 Years of Trial and Error. Part 1 & Part 2

Lerner Research Institute Career Development Series, Cleveland Clinic, Cleveland, OH

2012 *Female Pelvic Floor Disorders: Mechanisms of Injury & Cell-based Strategies to Facilitate Recovery.* Lerner Research Institute, The Cleveland Clinic, Cleveland, OH

Mesenchymal Stem Cell Therapy for Stress Urinary Incontinence

Annual Retreat of the National Center for Regenerative Medicine, Cleveland, OH

Stress Urinary Incontinence: Mechanisms of Injury & Stimulation-Based Strategies to Facilitate Repair

Dept of Urology, ZhongNan Hospital, Wuhan, China

Stem Cell-Based Therapy for Stress Urinary Incontinence

Wuhan Institute of Virology, Chinese Academy of Sciences, Wuhan, China

Stress Urinary Incontinence: Mechanisms of Injury & Stimulation-Based Strategies to Facilitate Repair.

Department of Urology, 3rd Military Medical School, Chongqing, China

Laboratory Research in Female Pelvic Medicine: Who, What, Where, and Why

Roundtable Facilitator, American Urogynecologic Society Meeting, Chicago, IL

Female Pelvic Floor Disorders: Mechanisms of Childbirth Injury & Strategies to Facilitate Recovery.

Research Service, West Roxbury VA Medical Center, Boston, MA

Neurotrophin Therapy Improves Recovery of the Neuromuscular Continence Mechanism Following Simulated Birth Injury in Rats

Science of Female Pelvic Health meeting sponsored by SUFU and AUA, Atlanta, GA

RECENT INVITED TALKS, continued**2012 *Novel Method for Monitoring Bladder Pressure in SCI Patients.***Neurogenic Bladder Workshop, CRRC Dept of Urology 10th Anniversary. Beijing, China***Stress Urinary Incontinence: Mechanisms of Injury & Stem Cell-Based Strategies to******Facilitate Repair*** Dept of Obstet & Gynecol, Rambam Medical Center, Haifa, Israel***Stress Urinary Incontinence: Proposed Pathophysiologic Mechanisms and Therapeutic Strategies***

Research & Development Division, Eli Lilly, Inc., Indianapolis, IN

Stress Urinary Incontinence: Mechanisms of Injury & Stem Cell-Based Strategies to***Facilitate Repair*** R&D Service, R.L. Roudebush VA Medical Center, Indianapolis, IN**2011 *Female Stress Urinary Incontinence: Mechanisms of Childbirth Injury & Strategies to******Facilitate Recovery.*** Mexican National Meeting of Physiology, Leon Guanajuato, Mexico***Urinary Incontinence in Women: Can We Prevent Stress Urinary Incontinence?***

Dept of Biology, Universidad Autonoma de Tlaxcala, Tlaxcala, Mexico

Advanced Benchmarking for Introduction of New Urodynamic EquipmentWorkshop 6: *Guidelines on Urodynamic Equipment Performance*,

International Continence Society meeting, Glasgow, Scotland

2010 *Biomechanics of Pelvic Floor Disorders*

Symposium on Biomechanical and Aerospace Applications in Multiscale and Geometric Modeling, University of Southern Florida, Tampa, FL

Biomechanical Concepts of Stress Incontinence: Theories of Continence and Pressure Measurement – The DetailsWorkshop 32: *Good Urodynamic Practice: Measuring Urethral Continence Function*, International Continence Society meeting, Toronto, Canada***Models for Biomechanical Support of Pelvic Floor and Urinary Continence***

AUA Foundation & Society for Basic Urology Research Summer Research Conference on Incontinence, Linthicum, MD

Pelvic Floor Biomechanics

Panelist, Society for Urodynamics & Female Urology (SUFU), St. Petersburg, FL

2009 *Submucosal Pressure Sensing of Internal Organs*

Neural Prosthesis Seminar, Case Western Reserve University, Cleveland, OH

Biomechanics of Pelvic Floor Disorders

Keynote Speaker, International Society of Biomechanics, Capetown, South Africa

Animal Models of Female Stress Urinary Incontinence

Dept. of Urology, Louisiana State University Health Sciences Center, New Orleans, LA

Maternal Birth Injuries: How do they lead to Pelvic Floor Disorders?

Dept. of Bioengineering & McGowan Inst. Regenerative Medicine, Univ. of Pittsburgh

Looking Inside the Human Body

Innovating for Continence, Chicago, IL

Maternal Birth Injuries: How do they lead to Incontinence?

Showcase Seminar, the Cleveland Clinic, Cleveland, OH

Mechanisms of childbirth injury leading to SUI

NIDDK New Research Directions for Urinary Incontinence Symposium, Bethesda, MD

2008 *Biomechanics of Cough, Stress Incontinence, and Female Pelvic Floor*

Reproductive Bioengineering 2008, Kuhtai, Austria.

PEER-REVIEWED ORIGINAL PUBLICATIONS

86. Song, Q.-X., B. Balog, J. Kerns, D.L. Lin, Y. Sun, **M.S. Damaser**, H.-H. Jiang (2013) Long-term Effects of Simulated Childbirth Injury on Function and Innervation of the Urethra. *Neurourology & Urodynamics*. Submitted
85. Couri, B.M., A. Borazjani, A.T. Lenis, B. Balog, M. Kuang, D.L. Lin, and **M.S. Damaser** (2013) Validation of a Genetically Matched Wild Type Strain and Lysyl Oxidase-Like 1 Knockout Mouse Model of Pelvic Organ Prolapse. *Female Pelvic Medicine and Reconstructive Surgery*. Submitted.
84. Gill, B.C., D.L. Lin, B.M. Balog, C. Dissaranan, **M.S. Damaser**, and H.-H. Jiang (2013) Molecular Assessment of Neuroregenerative Response in the Pudendal Nerve. *BMC Urology*. Submitted.
83. Dissaranan, C., M.A. Cruz, M.J. Kiedrowski, B.M. Balog, B.C. Gill, M.S. Penn, H.B. Goldman, and **M.S. Damaser** (2013) Mesenchymal Stem Cell Secretome Promotes Elastogenesis and Facilitates Recovery from Simulated Childbirth Injury. *Cell Transplantation*. In Press.
82. Venkataraman L., A.T. Lenis, B.M. Couri, **M.S. Damaser**, and A. Ramamurthi (2013) Induced Regenerative Elastic Matrix Repair in LOXL1 Knockout Mouse Cell Cultures: Towards Potential Therapy for Pelvic Organ Prolapse. *Journal of Tissue Engineering and Regenerative Medicine*. In Press.
81. Jiang, H.-H., O.N. Kokiko-Cochran, K. Li, B. Balog, C.-Y. Lin, **M.S. Damaser**, V. Lin, J.Y. Cheng, Y.-S. Lee (2013) Bladder Dysfunction after Traumatic Brain Injury in rats. *Experimental Neurology*. **240**: 57-63.
80. Lenis, A.T., M. Kuang, L.L. Woo, A. Hijaz, M.S. Penn, R.S. Butler, R. Rackley, **M.S. Damaser*** and H.M. Wood* (2013) Impact of Parturition on Chemokine Homing Factor Expression in the Vaginal Distension Model of Stress Urinary Incontinence. *Journal of Urology*. **189**(4):1588-1594. * these authors shared responsibility for senior authorship.
79. Jiang, H.-H., B.C. Gill, C. Dissaranan, M. Zutshi, B. Balog, D.L. Lin, and **M.S. Damaser** (2013) Effects of Acute Selective Pudendal Nerve Electrical Stimulation after Simulated Childbirth Injury. *American Journal of Physiology – Renal Physiology*. **304**(3): F239-47.
78. Salcedo, L., M. Mayorga, **M.S. Damaser**, B. Balog, R.S. Butler, M.S. Penn, M. Zutshi (2013) Mesenchymal stem cells can improve anal pressures after anal sphincter injury. *Stem Cell Research*. **10**(1):95-102.
77. Spirka, T., K. Kenton, L. Brubaker, and **M. Damaser** (2013) Effect of Material Properties on Predicted Vesical Pressure During a Cough in a Simplified Finite Element Model of the Bladder and Urethra. *Annals of Biomedical Engineering*. **41**: 185-94
76. Gill, B.C., B.M. Balog, C. Dissaranan, H.H. Jiang, J.B. Steward, D.L. Lin, and **M.S. Damaser** (2013) Neurotrophin Therapy Improves Recovery of the Neuromuscular Continence Mechanism Following Simulated Birth Injury in Rats. *Neurourology and Urodynamics*. **32**:82-7. **This paper won 1st Place in the Basic Science Paper Competition of the Society for Urodynamics and Female Urology in 2012.**
75. Cruz, M., C. Dissaranan, A. Coteleur, M. Kiedrowski, M. Penn, and **M.S. Damaser** (2012) Pelvic organ distribution of mesenchymal stem cells injected intravenously after simulated childbirth injury in female rats. *Obstetrics and Gynecology International*. 2012: 612946.
74. Majerus, S., S. Garverick, M.A. Suster, P.C. Fletter, and **M.S. Damaser** (2012) Wireless, ultra-low-power implantable sensor for chronic bladder pressure monitoring. *ACM Journal on Emerging Technologies in Computing Systems*. **8**(2), art. no. 11

PEER-REVIEWED PUBLICATIONS, continued

73. **Damasar, M.S.**, L. Salcedo, G. Wang, P.J. Zaszczurynski, M.A. Cruz, R.S. Butler, H.-H. Jiang, and M. Zutshi (2012) Electrical stimulation of anal sphincter or pudendal nerve improves anal sphincter pressure. *Diseases of Colon & Rectum*. **55**(12): 1284-1294.
72. Sajadi, K.P., D.L. Lin, J.E. Steward, B.M. Balog, C. Dissaranan, B.C. Gill, H.-H. Jiang, J.M. Kerns, and **M.S. Damaser** (2012) Pudendal Nerve Stretch Reduces External Urethral Sphincter Activity in Rats. *Journal of Urology*. **188**(4): 1389-95.
71. Pastelin C.F., R. Juarez, **M.S. Damaser**, Y. Cruz (2012) Neural pathways of somatic and visceral reflexes of the external urethral sphincter in female rats. *Journal of Comparative Neurology*. **520**(14): 3120-34.
70. Salcedo, L., L. Lian, H.-H. Jiang, N. Sopko, M. Penn, **M.S. Damaser**, M. Zutshi (2012) Low current electrical stimulation upregulates cytokine expression in the anal sphincter. *International Journal of Colorectal Disease*. **27**(2): 221-225.
69. Salcedo, L., N. Sopko, H.-H. Jiang, **M. Damaser**, M. Penn and M. Zutshi (2011) Chemokine Upregulation in Response to Anal Sphincter and Pudendal Nerve Injury: Potential Signals for Stem Cell Homing. *International Journal of Colorectal Disease*. **26**(12): 1577-81.
68. Phull, H.S., H.Q. Pan, R.S. Butler, D.E. Hansel, and **M.S. Damaser** (2011) Vulnerability of continence structures to injury by simulated childbirth. *American Journal of Physiology – Renal Physiology*. **301**(3): F641-9.
67. Cooper, M.A., P.C. Fletter, P.J. Zaszczurynski, and **M.S. Damaser** (2011) Comparison of Weighted and Weightless Transduction Mediums for use in Urological Catheter Manometer Systems. *Neurourology and Urodynamics*. **30**(3): 329-334.
66. Jiang, H.H., L.B. Salcedo, and **M.S. Damaser** (2011) Quantification of neurological and other contributors to continence in female rats. *Brain Research*. **25**(1382): 198-205.
65. Majerus, S.J.A., P.C. Fletter, **M.S. Damaser**, S.L. Garverick (2011) Low-Power Wireless Micro-manometer System for Acute and Chronic Bladder Pressure Monitoring. *IEEE Transactions on Biomedical Engineering*. **58**(3): 763-7.
64. Pan, H.Q., D.L. Lin, C. Strauch, R.S. Butler, V. Monnier, F. Daneshgari, and **M.S. Damaser** (2010) Pudendal nerve injury reduces urethral outlet resistance in diabetic rats. *American Journal of Physiology – Renal Physiology*. **299**(6):F1443-50.
63. Salcedo, L., **M.S. Damaser**, R.S. Butler, H.-H. Jiang, T. Hull, M. Zutshi (2010) Long-term effects of pressure and electromyography in a rat model of anal sphincter injury. *Diseases of the Colon and Rectum*. **53**(8):1209-17.
62. Steward J.E., J.D. Clemons, P.J. Zaszczurynski, R.S. Butler, **M.S. Damaser**, H.-H. Jiang (2010) Quantitative Evaluation of Electrodes for External Urethral Sphincter Electromyography during Bladder-to-Urethral Guarding Reflex. *World Journal of Urology*. **28**(3):365-71.
61. Jiang, H.H., L.B. Salcedo, B. Song, and **M.S. Damaser** (2010) Pelvic floor muscles and the external urethral sphincter have different response to applied bladder pressure during continence. *Urology*. **75**(6):1515.e1-7.
60. Gustilo-Ashby A.M., U. Lee, D. Vurbic, D. Syptert, F. Daneshgari, M. Barber, and **M.S. Damaser** (2010) The Impact of Cesarean Delivery on Female Pelvic Floor Dysfunction in Lysyl Oxidase Like-1 (LOXL1) Knockout Mice. *Female Pelvic Medicine and Reconstructive Surgery*. **16**(1): 21-30.

PEER-REVIEWED PUBLICATIONS, continued

59. Gasbarro G., D.L. Lin, D. Vurbic, A. Quisno, B. Kinley, F. Daneshgari, and **M.S. Damaser** (2010) Voiding Function in Obese and Type 2 Diabetic Female Rats. *American Journal of Physiology – Renal Physiology*. **298**: F72-F77.
58. Wood H.M., U.J. Lee, D. Vurbic, E. Sabanegh, J.H. Ross, T. Li, and **M.S. Damaser** (2009) Sexual development and fertility of *LOXLI*^{-/-} male mice. *Journal of Andrology*. **30**(4):452-9.
57. Zutshi, Z., L. Salcedo, P. Zaszczurynski, T. Hull, R.S. Butler and **M.S. Damaser** (2009) Effects of Sphincterotomy and Pudendal Nerve Transection on the Anal Sphincter in a Rat Model. *Diseases of the Colon and Rectum*. **52**(7):1321-9.
56. Jiang, H.-H., H.Q. Pan, A.M. Gustilo-Ashby, B.C. Gill, B. Glaab, P.J. Zaszczurynski, **M.S. Damaser** (2009) Dual simulated childbirth injuries result in slowed recovery of pudendal nerve and urethral function. *Neurourology & Urodynamics*. **28**(3): 229-35. **This paper won 1st Place in the Basic Science Paper Competition of the Society for Urodynamics and Female Urology in 2008.**
55. Woo, L.L, A. Hijaz, H.Q. Pan, M. Kuang, R.R. Rackley **M.S. Damaser** (2009) Simulated Childbirth Injuries in an Inbred Rat Strain. *Neurourology & Urodynamics*. **28**(4): 356-61.
54. Pan H.Q., J.M. Kerns, D.L. Lin, D. Syptert, J. Steward, C.R.V. Hoover, P. Zaszczurynski, R.S. Butler, and **M.S. Damaser** (2009) Dual simulated childbirth injury delays anatomic recovery. *American Journal of Physiology – Renal Physiology*. **296**(2): F277-83.
53. Chen, C.C.G., A. Hijaz, J.A. Drazba, **M.S. Damaser**, F. Daneshgari (2009) Collagen Remodeling and Suburethral Inflammation Might Account for Preserved Anti-Incontinence Effects of a Cut Polypropylene Sling in a Rat Model. *Urology*. **73**(2):415-420.
52. Jiang H.-H., A.M. Gustilo-Ashby, L.B. Salcedo, H.Q. Pan, D.F. Syptert, R.S. Butler and **M.S. Damaser** (2009) Electrophysiological function during voiding after simulated childbirth injuries. *Experimental Neurology*. **215**(2):342-348.
51. Hoyte, L., **M.S. Damaser**, S.K. Warfield, G. Chukkapalli, A. Majumdar, D.J. Choi, A. Trivedi, P. Krysl (2008) Quantity and distribution of Levator Ani Stretch during Simulated Vaginal Childbirth. *American Journal of Gynecology*. **199**(2):198.e1-5.
50. Lee, U.J., A.M. Gustilo-Ashby, F. Daneshgari, M. Kuang, D. Vrubic, D.L. Lin, J. Richey, C.A. Flask, T. Li, **M.S. Damaser** (2008) Lower urogenital tract anatomical and functional phenotype in lysyl oxidase like-1 knockout mice resembles female pelvic floor dysfunction in humans. *American Journal of Physiology – Renal Physiology*. **295**(2):F545-F555.
49. Wood, H.M., M. Kuang, L. Woo, A. Hijaz, M. Penn, R. Rackley, **M.S. Damaser** (2008) Cytokine Expression after Vaginal Distension of Different Durations in Virgin Sprague-Dawley Rats. *Journal of Urology*. **180**(2):753-9.
48. Shoffstall, A.J., P.J. Zaszczurynski, R.S. Butler, **M.S. Damaser** (2008) Development of a device to standardize leak point pressure experiments in rats. *Neurourology & Urodynamics*. **27**(6):553-558.
47. Gill, B.C., P.C. Fletter, P.J. Zaszczurynski, A. Perlin, D. Yachia, **M.S. Damaser** (2008) Feasibility of Fluid Volume Conductance to Assess Bladder Volume. *Neurourology & Urodynamics*. **27**(6):525-531.
46. **Damaser, M.S.**, M.K. Samplaski, M. Parikh, D.L. Lin, S. Rao, J.M. Kerns (2007) Time Course of Neuroanatomical and Functional Recovery after Bilateral Pudendal Nerve Injury in Female Rats. *American Journal of Physiology – Renal Physiology*. **293**(5): F1614-21.

PEER-REVIEWED PUBLICATIONS, continued

45. Kim, J.-H., L. Saffore, X. Huang, J. Bena, **M.S. Damaser**, F. Daneshgari (2007) Diabetes slows the recovery from urinary incontinence due to simulated childbirth in female rats. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*. **293**(2): R950-55.
44. Liu, G., F. Daneshgari, M. Li, D.L. Lin, T. Li, **M.S. Damaser** (2007) Bladder and urethral function in pelvic organ prolapsed Lysyl Oxidase Like-1 mutant mice. *BJU International*. **100**(2): 414-8.
43. Hoyte, L. and **M.S. Damaser** (2007) Clinical Female Pelvic Anatomy for Maternal Childbirth Injury Simulations. *Annals of the New York Academy of Science*. **1101**: 361-76.
42. Pan, H.Q., J.M. Kerns, D.L. Lin, S. Liu, N. Esparza, and **M.S. Damaser** (2007) Increased Duration of Simulated Childbirth Injuries Results in Increased Time to Recovery. *American Journal of Physiology: Regulatory, Integrative, and Comparative Physiology*. **292**(4): R1738-R1744.
41. Woo, L.L., A. Hijaz, M. Kuang, M.S. Penn, **M.S. Damaser**, R.R. Rackley (2007) Overexpression of Stem Cell-Homing Cytokines in Rat Pelvic Organs Following Vaginal Distension. *Journal of Urology*. **177**(4): 1568-1572. **Editorial, pp. 1227-1228.**
40. Kim, R., J.M. Kerns, S. Liu, T. Nagel, P. Zaszczurynski, D.L. Lin, and **M.S. Damaser** (2007) Striated Muscle and Nerve Fascicle Distribution in the Female Rat Urethra. *Anatomical Record*. **290**(2): 145-154. **Cover Article.**
39. Ahmed, Y., D.L. Lin, C. Ferguson, N. Esparza, and **M.S. Damaser** (2006) Effect of Estrogen on Urethral Function and Molecular Nerve Regeneration Following Pudendal Nerve Crush in the Female Rat. *Journal of Urology*. **175**(5): 1948-1952.
38. Liu, X., Y. Zhao, B. Pawlyk, **M.S. Damaser**, and T. Li (2006) Failure of Elastic Fiber Homeostasis Leads to Pelvic Floor Disorders. *American Journal of Pathology*. **168**(2): 519-528.
37. Levin, R.M., T.P. Reed, C. Whitbeck, P. Chichester, and **M. Damaser** (2005) Effect of Strip Length on the Contractile Dysfunction of Bladder Smooth Muscle Following Partial Outlet Obstruction. *Urology*. **66**(3): 659-664.
36. Hijaz, A., F. Daneshgari, X. Huang, J. Bena, G. Liu, L. Saffore, **M. Damaser** (2005) Role of sling integrity in the restoration of leak point pressure in the rat vaginal sling model. *Journal of Urology*. **174**(2): 771-775.
35. **Damaser, M.S.**, C. Whitbeck, P. Chichester, and R.M. Levin (2005) Effect of Vaginal Distension on Blood Flow and Hypoxia of Urogenital Organs of the Female Rat. *Journal of Applied Physiology*. **98**(5): 1884-1890.
34. Ferguson, C.F., D.L. Lin, S. Rao, and **M.S. Damaser** (2005) Short-Term Functional and Neuroregenerative Response of the Urethra to Ovariectomy and Vaginal Distension in Female Rats. *International Urogynecology Journal*. **16**(2): 119-125.
33. Ahn, H., D.L. Lin, N. Esparza, and **M.S. Damaser** (2005) The Short-Term Timecourse of Bilateral Pudendal Nerve Injury on Leak Point Pressure in Female Rats. *Journal of Rehabilitation Research & Development*. **42**(1): 109-114.
32. Balakrishnan, N., B. Uvelius, P. Zaszczurynski, D.L. Lin, and **M.S. Damaser** (2005) Biocompatibility of Nitinol and Stainless Steel in the Bladder: an Experimental Study. *Journal of Urology*. **173**: 647-650.
31. Hijaz, A., F. Daneshgari, T.W. Cannon, and **M.S. Damaser** (2004) Efficacy of a Vaginal Sling Procedure in a Rat Model of Stress Urinary Incontinence. *Journal of Urology*. **172**: 2065-2068.

PEER-REVIEWED PUBLICATIONS, continued

30. Kane, D.D., J.M. Kerns, D.L. Lin, **M.S. Damaser** (2004) Early Structural Effects of Oestrogen on Pudendal Nerve Regeneration in the Rat. *BJU International*. **93**: 870-878.
29. Parikh, M., M. Rasmussen, L. Brubaker, C. Salomon, K. Sakamoto, R. Evenhouse, Z. Ai, and **M.S. Damaser** (2004) Three Dimensional Virtual Reality Model of the Female Pelvic Floor. *Annals of Biomedical Engineering*. **32**(2): 292-296. **Cover Article.**
28. **Damaser, M.S.**, C. Broxton-King, C. Ferguson, F.J. Kim, and J.M. Kerns (2003) Functional and Neuroanatomical Effects of Vaginal Distension and Pudendal Nerve Crush in the Female Rat. *Journal of Urology*. **170**(3): 1027-1031.
27. Rao, S.G., J.S. Wheeler, J.S. Walter, A. Jamnia, **M.S. Damaser** (2003) Predicting Urethral Area from Video-Urodynamics in Women with Voiding Dysfunction. *Neurourology and Urodynamics*. **22**(4): 277-283.
26. Ferguson, C.L., J.S. Walter, Y. Lucero, J.S. Wheeler, and **M.S. Damaser** (2003) Bladder Pressure Monitoring during Intermittent Catheterization: A Comparison of Gauges and Methods. *Neurourology and Urodynamics*. **22**(3): 250-254.
25. Constantinou, C.E., **M.S. Damaser**, I. Perlash (2002) Displacement Sequence and Elastic Properties of Anterior Prostate/Urethral Interface During Micturition of Spinal Cord Injured Men. *Ultrasound in Medicine and Biology*. **28**(9): 1157-1163.
24. Cannon, T.W., C., Ferguson, E.M. Wojcik, S. Saraga, C. Thomas, and **M.S. Damaser** (2002) Effects of Vaginal Distension on Urethral Anatomy and Function. *BJU International*. **90**(4): 403-407. **This paper won first prize, Hines VA/ Loyola University Medical School poster competition, 2000.**
23. Sakamoto, K., T. Khan, B. Uvelius, and **M.S. Damaser** (2002) Preliminary Study of a Genetically Engineered Spinal Cord Implant on Urinary Bladder after Experimental Spinal Cord Injury in Rats. *Journal of Rehabilitation Research*. **39**(3):347-358.
22. Mulhall, J.P. and **M.S. Damaser** (2001) Development of a Mathematical Model for the Prediction of Area of Venous Leak. *International Journal of Impotence Research*. **13**:236-239.
21. Cannon, T.W. and **M.S. Damaser** (2001) Effects of Anesthesia on Cystometry and Leak Point Pressure of the Female Rat. *Life Sciences*. **69**(10):1193-1202.
20. **Damaser, M.S.**, C. Whitbeck, M. Barreto, P. Horan, H. Benno, L.J. O'Connor, and R. Levin (2000) Comparative Physiology and Biochemistry of Rat and Rabbit Urinary Bladder. *BJU International*. **85**(4):519-525.
19. Sakamoto, K., G.M. Smith, P.D. Storer, K.J. Jones, and **M.S. Damaser** (2000) Neuroregeneration and Voiding Behavior Patterns after Pudendal Nerve Crush in Female Rats. *Neurourology & Urodynamics*. **19**:311-321. **This paper won first prize, basic research, Chicago Urologic Association, 1999.**
18. Kerns, J.M., **M.S. Damaser**, J.M. Kane, K. Sakamoto, J.T. Benson, S. Shott, and L. Brubaker (2000) Effects of Pudendal Nerve Injury in the Female Rat. *Neurourology & Urodynamics*. **19**:53-69.17.
17. **Damaser, M.S.**, K. Brzezinski, and P.A. Longhurst. (1999) Filling Mechanics of Obstructed and De Obstructed Rat Urinary Bladders. *Neurourology & Urodynamics*. **18**: 659-671.
16. **Damaser, M.S.**, K. Brzezinski, J.S. Walter, J.S. Wheeler, L.S. Schroeder, and D.A. Hatch (1999) Estimating Detrusor Pressure at Home in Pediatric Patients with Myelomeningocele. *Journal of Urology*. **162**: 1410-1414.

PEER-REVIEWED PUBLICATIONS, continued

15. Walter, J.S., G. Andros, S. Stokes, J.S. Wheeler, **M.S. Damaser**, J. Sacks, I. Kadri, and R. Walter (1998) Urodynamic Verification of Noninvasive Back-Pressure Recordings from the Urinary Bladder. *Techniques in Urology*. **4**(4): 185-191.
14. Andros, G.J., D.A. Hatch, J.S. Walter, J.S. Wheeler, L. Schlehahn, and **M.S. Damaser**. (1998) Home Bladder Pressure Monitoring in Children with Myelomeningocele. *Journal of Urology*. **160**: 518-521. **This paper won first prize, clinical research, Chicago Urologic Association, 1997.**
13. Walter, J.S., J.S. Wheeler, J. Markley, R. Chintam, L.M. Blacker, and **M.S. Damaser** (1998) Home Monitoring of Bladder Pressure and Volume in Individuals with Spinal Cord Injury and Multiple Sclerosis. *Journal of Spinal Cord Medicine*. **21**: 7-14.
12. **Damaser, M.S.**, N. Haugaard, and B. Uvelius (1997) Partial Obstruction of the Rat Urinary Bladder: Effects on Mitochondria and Mitochondrial Glucose Metabolism in Detrusor Smooth Muscle Cells. *Neurourology and Urodynamics*. **16**: 601-607.
11. Yu, H.J., R.M. Levin, P.A. Longhurst, and **M.S. Damaser** (1997) Ability of Obstructed Bladders to Empty is Dependent on Method of Stimulation. *Urological Research*. **25**: 291-298.
10. Yu, H.J., R.M. Levin, P.A. Longhurst, and **M.S. Damaser** (1997) Effect of Age and Outlet Resistance on Rabbit Urinary Bladder Emptying. *Journal of Urology*. **158**: 924-930.
9. Rohrmann, D., S.A. Zderic, J.W. Duckett, R.M. Levin, and **M.S. Damaser** (1997) Compliance of the Obstructed Fetal Rabbit Bladder. *Neurourology and Urodynamics*. **16**: 179-189.
8. Rohrmann, D., F.C. Monson, **M.S. Damaser**, R.M. Levin, J.W. Duckett, and S.A. Zderic (1997) Partial Bladder Outlet Obstruction in the Fetal Rabbit. *Journal of Urology*. **158**: 1071-1074.
7. **Damaser, M.S.**, K.B. Kim, P.A. Longhurst, A.J. Wein, and R.M. Levin (1997) Calcium Regulation of Urinary Bladder Function. *Journal of Urology*. **157**: 732-738.
6. **Damaser, M.S.**, A. Arner, and B. Uvelius (1996) Partial Outlet Obstruction Induces Chronic Distension and Increased Stiffness of the Rat Urinary Bladder. *Neurourology & Urodynamics*. **15**: 650-665.
5. **Damaser, M.S.** and S.L. Lehman (1996) Two Mathematical Models Explain the Variation in Cystometrograms of Obstructed Urinary Bladders. *Journal of Biomechanics*. **29**(12): 1615-1619.
4. Griffin, J.H., J.S. Walter, T.G. Schuster, L. Schlehahn, V. Scarpine, **M.S. Damaser**, and J.S. Wheeler (1996) Preliminary Noninvasive Back-Pressure Recordings of Bladder Pressure. *Techniques in Urology*. **2**(2): 108-112.
3. **Damaser, M.S.** and S.L. Lehman (1995) The Effect of Urinary Bladder Shape on its Mechanics During Filling. *Journal of Biomechanics*. **28**: 725-32.
2. **Damaser, M.S.** and S.L. Lehman (1993) Does It Matter, The Shape of the Bladder? *Neurourology and Urodynamics*. **12**: 277-280.
1. Holmes, J.A., **M.S. Damaser**, and S.L. Lehman (1992) Erector Spinae Activation and Movement Dynamics about the Lumbar Spine in Lordotic and Kyphotic Squat-Lifting. *Spine*. **17**(3): 327-334.

LETTERS TO THE EDITOR

- Damaser, M.S.** (2011) Authors' Response to: Re: Comparison of Air-Charged and Water-Filled Urodynamic Pressure Measurement Catheters (*Neurourol & Urodynam.* **30**(3): 329-334). *Neurourology & Urodynamics.* **30**(8): 1711.
- Damaser, M.S.,** C.L. Ferguson, C. Broxton-King, F.J. Kim, and J.M. Kerns (2005) Re: Functional and Neuroanatomical Effects of Vaginal Distension and Pudendal Nerve Crush in the Female Rat. (*J Urol.* **170**: 1027-1031), [Response to letter by Shafik, A., *J. Urol.* **173**: 1436], *Journal of Urology*, **173**: 1436.
- Damaser, M.S.,** C.L. Ferguson, C. Broxton-King, F.J. Kim, and J.M. Kerns (2004) Re: Functional and Neuroanatomical Effects of Vaginal Distension and Pudendal Nerve Crush in the Female Rat. (*J Urol.* **170**: 1027-1031), [Response to letter by Osmonov, D.K. and F.J. Martinez Portillo, *J. Urol.* **171**: 2388], *Journal of Urology.* **171**: 2388-2389.
- Damaser, M.S.,** J.S. Walter, M. Plishka (1994) Urodynamics Evaluation of Urethral Opening Area in Females with Stress Incontinence [Letter]. *International Urogynecology Journal.* **5**: 1

BOOK CHAPTERS AND REVIEW PAPERS

23. Majerus, S., S. Garverick, W. Ko, M.S. Damaser (2013) Bladder Control Implants. In *Biochips Handbook*. Edited by M. Sawan, E. Ghafar-Zadeh, and B. Gosselin. Springer-Verlag GmbH, Heidelberg, Germany. In Press.
22. Gill, B.C., M.S. Damaser, S.P. Vasavada, and H.B. Goldman (2013) Stress Incontinence in the Era of Regenerative Medicine: Reviewing the Importance of the Pudendal Nerve. *Journal of Urology.* 190(1):22-8.
21. Dissaranan, C., B.M. Couri, H.B. Goldman, and **M.S. Damaser** (2013) Pathologies of the Lower Urinary Tract. In *Patologías del Aparato Urogenital*, by Y. Cruz and J.R. Eguibar JR (eds). Aparato Urogenital en Mamíferos. México, BUAP. In Press.
20. Vaegler, M., A. Lenis, L. Daum, B. Amend, M. Renninger, A. Stenzl, **M.S. Damaser,*** and KD Sievert* (2012) Stem Cell Therapy for Voiding and Erectile Dysfunction: A Review. *Nature Reviews Urology.* **9**: 435-447. * these authors shared responsibility for senior authorship.
19. Couri, B. A. Lenis, A. Borazjani, M. Paraiso, **M.S. Damaser** (2012) Animal Models of Female Pelvic Organ Prolapse: Lessons Learned. *Expert Review of Obstetrics & Gynecology.* **7**(3): 249-260.
18. Goldman, H.B., K.D. Sievert* and **M.S. Damaser*** (2012) Will We Ever Use Stem Cells for the Treatment of SUI? *Neurourology and Urodynamics.* **31**(3): 386-389. * these authors shared responsibility for senior authorship.
17. Cruz, Y., H.-H. Jiang, P.J. Zaszczurynski, R. Juarez, C. Pastelin, and **M.S. Damaser** (2011) Electromyography of pelvic floor muscles in rats. *Advances in Applied Electromyograms*. Edited by Joseph Mizrahi. Rijeka, Croatia: Intech Publishing. ISBN 978-953-307-382-8. pp. 189-212.
16. Dissaranan, C., M.A. Cruz, B.M. Couri, H.B. Goldman and **M.S. Damaser** (2011) Stem Cell Therapy for Incontinence: Where Are We Now? What is the Realistic Potential? *Current Urology Reports.* **12**(5):336-44.
15. Jiang H.-H. & **M.S. Damaser** (2011) Animal models of stress urinary incontinence. *Handbook of Experimental Pharmacology: Urinary Tract.* K.-E. Andersson and M.C. Michel (eds.) **202**:45-67.

BOOK CHAPTERS AND REVIEW PAPERS, continued

14. Gill, B., C. Moore and **M.S. Damaser** (2010) Postpartum Stress Urinary Incontinence: Lessons Learnt from Animal Models. *Expert Review of Obstetrics & Gynecology*. **5**(5):567-580.
13. Sajadi, K.P., B.C. Gill and **M.S. Damaser** (2010) Neurogenic Aspects of Stress Urinary Incontinence. *Current Opinion in Obstetrics and Gynecology*. **22**(5):425-429.
12. Hijaz, A., F. Daneshgari, K.D. Sievert, and **M.S. Damaser** (2008) Animal models of female stress urinary incontinence: A review. *Journal of Urology*. **179**(6):2103-2110.
11. Spirka, T. and **M.S. Damaser** (2007) Modeling Physiology of the Urinary Tract. *Journal of Endourology*. **21**(3): 294-299.
10. Lemack, G.E., S. Siegel, C. Comiter, **M. Damaser**, K. Kobashi, C. Payne, L. Rodriguez, E.J. Wright (2006) Highlights from the Combined Society of Urodynamics and Female Urology and International Society of Pelvic Neuromodulation Annual Meeting. *Journal of Urology*. **175**(5): 1852-1856.
9. Weber, A.M., G.M. Buchsbaum, B. Chen, A.L. Clark, **M.S. Damaser**, F. Daneshgari, G. Davis, J. De Lancey, K. Kenton, A.C. Weidner, R.A. Word (2004) Basic Science and Translational Research in Female Pelvic Floor Disorders: Proceedings of an NIH-Sponsored Meeting. *Neurourology and Urodynamics*. **23**: 288-301.
8. Cannon, T.W. and **M.S. Damaser** (2004) Pathophysiology of Lower Urinary Tract Dysfunction: Continence and Incontinence. *Clinical Obstetrics and Gynecology*, **47**: 28-35.
7. **Damasar, M.S.**, F.J. Kim, and G.M. Minetti (2003) Methods of Testing Urethral Resistance in the Female Rat. *Bladder Disease: Research Concepts and Clinical Applications*. Edited by A. Atala and D. Slade. Advances in Experimental Medicine and Biology, Vol. 539 Part B, New York: Kluwer Academic/Plenum Publishers, pp. 831-839.
6. Jones, KJ, T. Brown, and **M.S. Damaser** (2001) Neuroprotective Effects of Gonadal Steroids on Regenerating Peripheral Motoneurons. *Brain Research Reviews*. **37**: 372-382.
5. Walter, J.S., J. Sacks, G. Welsh, P. Terouw, J.S. Wheeler, **M.S. Damaser**, R. Othman, and L. Anfinson (2000) Tracking Urinary Incontinence. *Federal Practitioner*, **17**(9):28-38.
4. **Damasar, M.S.** (1999) Whole Bladder Biomechanics During Filling. *Scandinavian Journal of Urology and Nephrology*. **S201**: 51-58; Discussion pp. 90-91.
3. **Damasar, M.S.**, H.J. Yu, P.A. Longhurst, and R.M. Levin (1997) The Concept of Bladder Work: Work and Power in Bladder Emptying. *Scandinavian Journal of Urology and Nephrology*. **S184**: 35-41.
2. Levin, R.M., H.J. Yu, K.B. Kim, P.A. Longhurst, **M.S. Damaser** (1997) Etiology of Bladder Dysfunction Secondary to Partial Outlet Obstruction: Calcium Disregulation in Bladder Power Generation and the Ability to Perform Work. *Scandinavian Journal of Urology and Nephrology*. **S184**: 43-50.
1. **Damasar, M.S.** and S.L. Lehman (1995) Two Mathematical Models Predict the Variation in Capacity and Compliance of Hypertrophied Bladders. *Muscle, Matrix, and Bladder Function*. Edited by S.A. Zderic. Advances in Experimental Medicine & Biology. **385**. New York: Plenum, pp. 255-256.

RECENT PEER-REVIEWED ABSTRACTS (most recent 5 years only)

- Borazjani, A., B.M. Couri, M. Kuang, B.M. Balog, **M.S. Damaser** (2013) Connective Tissue Metabolism Enzymes are Aberrant During Puerperium in the Lox11 Mouse Model of Pelvic Organ Prolapse. *American Urogynecology Society Annual Meeting*. Las Vegas, NV
- Couri, B.M., G. Swaminathan, A.T. Lenis, D. Wilk, **M.S. Damaser**, A. Ramamurthi (2013) Compensatory elastogenesis by non-epithelial vaginal cells from lysyl oxidase like-1 KO mouse after vaginal delivery. *Gordon Research Conference on Elastin, Elastic Fibers & Microfibrils*. University of New England, Biddeford, ME
- Borazjani, A., B.M. Couri, A. Lenis, B. Balog, M. Kuang, **M.S. Damaser** (2013) Lox11 Deficiency in Mice Alters Transcriptional Regulation of Connective Tissue Metabolism Enzymes During Puerperium. *Gordon Research Conference on Elastin, Elastic Fibers & Microfibrils*. University of New England, Biddeford, ME
- Jiang, H.-H., F.-C. Yang, B.M. Balog, K. Li, C.-Y. Lin, **M.S. Damaser**, Y.-S. Lee (2013) Bladder remodeling after spinal cord injury associates with the process of sacral nervous plasticity using pseudoabies virus transneuronal tracing technology, *American Urological Association Annual Meeting*, San Diego, CA
- Jiang, H.-H., Q. Song, K. Deng, P.J. Zaszczurynski, R.S. Butler, **M.S. Damaser** (2013) Electrical stimulation decreases the frequency of urine leak dependent on stimulation parameters: an initial assessment in a stress urinary incontinence model. *American Urological Association Annual Meeting*, San Diego, CA
- Couri, B., L. Venkataraman, S. Manisastry, C. Bashur, A. Lenis, A. Ramamurthi, **M.S. Damaser** (2013) Alterations in the Elastic Matrix Assembly in Vaginal Smooth Muscle Cells in Lysyl Oxidase Like-1 Knockout Mouse Model of Pelvic Floor Dysfunction. *American Urological Association Annual Meeting*, San Diego, CA
- Marks, B., D.L. Lin, B. Balog, B. Couri, **M.S. Damaser** (2013) Presence and Location of Elastin in the Uninjured Rat Urethra. *Society of Urodynamics and Female Urology*, Las Vegas, NV
- Song, Q., B. Balog, D.L. Lin, V. Gurel, J. McMichael, H.-H. Jiang, **M.S. Damaser** (2013) Combination Histamine and Serotonin Treatment Improves Stress Urinary Incontinence after Simulated Birth Injury in a Rat Model. *Society of Urodynamics and Female Urology*, Las Vegas, NV
- Balog, B., Q. Song, D.L. Lin, P. Sheth, V. Gurel, J. McMichael, **M.S. Damaser** (2013) Combination Serotonin and Histamine Treatment Improves Recovery from Partial Bladder Outlet Obstruction in a Rat Model. *Society of Urodynamics and Female Urology*, Las Vegas, NV
- Couri, B., L. Venkataraman, S. Manisastry, C. Bashur, A. Lenis, A. Ramamurthi, **M.S. Damaser** (2013) Alterations in the Elastic Matrix Assembly in Vaginal Smooth Muscle Cells in Lysyl Oxidase Like-1 Knockout Mouse Model of Pelvic Floor Dysfunction, *Society of Urodynamics and Female Urology*, Las Vegas, NV
- Couri, B., A. Borazjani, A. Lenis, B. Balog, D.L. Lin, **M.S. Damaser** (2013) Lysyl Oxidase Like-1 Knockout Mouse: Histological and Phenotypic Validation of a Genetically Matched Wild Type Strain. *Society of Urodynamics and Female Urology*, Las Vegas, NV
- Damaser MS**, Lin DL, Hanzlicek B, Kiedrowski M, Balog B, Penn M, Goldman HB (2012) Mesenchymal Stem Cells Facilitate Pudendal Nerve Recovery from Simulated Childbirth Injury. *Proceedings of the International Continence Society*.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Borazjani, A., B.M. Couri, A.T. Lenis, B. Balog, M. Kuang, **M. Damaser** (2012) Pregnancy and Postpartum Expression of MMPs in Pelvic Tissues of the LOXL1 KO Mouse Model of Pelvic Organ Prolapse. *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S159.
- Couri, B.M., L. Venkataraman, S. Manisastry, C. Bashur, A.T. Lenis, A. Ramaurthi, **M.S. Damaser** (2012) Vaginal Delivery and Pelvic Organ Prolapse (POP) in LOXL1 KO Mice Alter *De Novo* Elastic Matrix Assembly by Vaginal Smooth Muscle Cells (SMCs). *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S91-2.
- Couri, B.M., A.T. Lenis, A. Borazjani, B. Balog, M. Kuang, **M.S. Damaser** (2012) Upregulation of Stem Cell Homing Cytokines in Pelvic Organs and Serum of Loxl1 Knockout Mice: A Pelvic Organ Prolapse Model. *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S63.
- Couri, B.M., A.T. Lenis, A. Borazjani, B. Balog, D.L. Lin, **M.S. Damaser** (2012) Validation of a Genetically Matched Wild Type Strain and Loxl1 Knockout Mouse Model of Pelvic Organ Prolapse. *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S68-9.
- Damaser, M.S., D.L. Lin, B. Hanzlicek, M. Kiedrowski, B. Balog, M. Penn, H.B. Goldman** (2012) Mesenchymal Stem Cells Preserve Neurological Function after Simulated Childbirth Injury. *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S73. **This paper won the award for best overall paper at the American Urogynecological Society annual meeting in 2012.**
- Song, Q., J. Clemmons, B. Balog, J. Kerns, D.L. Lin, M.S. Damaser, H.H. Jiang (2012) Changes in the Pudendal Nerve and External Urethral Sphincter after Recovery from Simulated Childbirth Injury. *Female Pelvic Medicine & Reconstructive Surgery*. **18**(5 S2): S161.
- Dissaranan, C., E. Holthaus, M. Cruz, B. Balog, H.B. Goldman, **M.S. Damaser** (2012) Mesenchymal Stem Cells (MSC) Secreted Factors Facilitate Pudendal Nerve (PN) Recovery after Simulated Childbirth Injury. *Journal of Urology* **187**(4S):e48-49. **This poster won the award for best presentation of the session at the American Urological Association annual meeting.**
- Gill, B., D.L. Lin, B. Balog, C. Dissaranan, H.-H. Jiang, **M.S. Damaser** (2012) Targeted Molecular Assessment of Pudendal Nerve Neuroregenerative Response – A Means of Analyzing Injury, Recovery, and Regenerative Therapies. *Journal of Urology* **187**(4S):e47.
- Gill, B., C. Dissaranan, H.-H. Jiang, B. Balog, D.L. Lin, **M.S. Damaser** (2012) Recovery of the Neuromuscular Continence Mechanism is Improved by Neurotrophin Treatment After Simulated Birth Injury in Rats. *Journal of Urology* **187**(4S):e549.
- Jiang, H.-H., R. Juarez, Y. Cruz, **M.S. Damaser** (2012) Electrical Stimulation of the Pudendal Nerve Promotes Functional Recovery After Simulated Birth Injury. *Journal of Urology* **187**(4S):e552-3.
- Couri, B.M., A.T. Lenis, M. Kuang, **M.S. Damaser** (2012) Injury Related Stem Cell Homing Cytokines in Lysyl Oxidase Like-1 Knock Out Mice: A Pelvic Organ Prolapse Model. *Journal of Urology* **187**(4S):e863.
- Venkataraman, L., A. Lenis, B. Couri, A. Ramamurthi, **M.S. Damaser** (2012) Improving Vaginal Smooth Muscle Elastin Deposition in a Genetic Model of Pelvic Organ Prolapse: Potential Pathophysiology-Based Therapy. *Journal of Urology* **187**(4S):e863-4.
- Sajadi, K.P., D.L. Lin, J. Steward, B. Balog, C. Dissaranan, B. Gill, H.-H. Jiang J.M. Kerns, **M.S. Damaser** (2012) Pudendal Nerve Stretch Reduces External Urethral Sphincter Activity in Rats. *Journal of Urology* **187**(4S):e44.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Lee, Y.-S., H.-H. Jiang, M. DePaul, C.-Y. Yin, K. Li, **M.S. Damaser**, V. Lin, J. Silver (2012) Spinal Cord Regeneration Improves Lower Urinary Tract Function After a Complete Spinal Cord Transection in Rats. *Journal of Urology* **187**(4S):e666. **This poster won the award for best presentation of the session at the American Urological Association annual meeting.**
- Jiang, H.-H., O.N. Kokiko-Cochran, K. Li, **M.S. Damaser**, C.-Y. Lin, V. Lin, J.Y. Cheng, Y.-S. Lee (2012) Traumatic Brain Injury Affects Bladder Function in Rats. *Journal of Urology* **187**(4S):e666.
- Gill, B., C. Dissaranan, H.-H. Jiang, B. Balog, D.L. Lin, **M.S. Damaser** (2012) Neurotrophin Therapy Improves Recovery of the Neuromuscular Continence Mechanism Following Simulated Birth Injury in Rats. *Neurourology and Urodynamics* **31**(2): 228-229. **This project was awarded 1st place, Basic Science Essay Prize.**
- Lee, Y.-S., H.-H. Jiang, M. DePaul, C.-Y. Yin, K. Li, M.S. Damaser, V. Lin, J. Silver (2012) Bladder Function Improves with Spinal Cord Regeneration after a Complete Spinal Cord Transection in Rats. *Neurourology and Urodynamics* **31**(2): 244-245.
- Sajadi, K.P., D.L. Lin, J. Steward, B. Balog, C. Dissaranan, B. Gill, H.-H. Jiang J.M. Kerns, **M.S. Damaser** (2012) Pudendal Nerve Stretch Reduces External Urethral Sphincter Activity in Rats. *Neurourology and Urodynamics* **31**(2): 238-239.
- Jiang, H.-H., O.N. Kokiko-Cochran, K. Li, M.S. Damaser, C.-Y. Lin, V. Lin, J.Y. Cheng, Y.-S. Lee (2012) Bladder Dysfunction after Traumatic Brain Injury in Rats. *Neurourology and Urodynamics* **31**(2): 232.
- Jiang, H.-H., R. Juarez, Y. Cruz, M.S. Damaser (2012) Pudendal Nerve Electrical Stimulation Improves Urinary Continence after Simulated Childbirth Injury in Rats. *Neurourology and Urodynamics* **31**(2): 240.
- Couri, B.M., A.T. Lenis, M. Kuang, **M.S. Damaser** (2012) Post-Partum Upregulation of Stem Cell Homing Cytokines in Lysyl Oxidase Like-1 Knock Out Model of Pelvic Organ Prolapse. *Neurourology and Urodynamics* **31**(2): 231.
- Dissaranan, C., E. Holthaus, M. Cruz, B. Balog, M.S. Penn, H.B. Goldman, **M.S. Damaser** (2012) Intravenous Mesenchymal Stem Cells Facilitate Pudendal Nerve recovery via Paracrine Factors after Simulated Childbirth Injury. *Neurourology and Urodynamics* **31**(2): 242-243.
- Gill, B., D.L. Lin, B. Balog, C. Dissaranan, H.-H. Jiang, **M.S. Damaser** (2012) Targeted Molecular Assessment of Pudendal Nerve Neuroregenerative Response. *Neurourology and Urodynamics* **31**(2): 248.
- Venkataraman, L., A. Lenis, B. Couri, A. Ramamurthi, **M.S. Damaser** (2012) Induced Regenerative Elastic Matrix Repair in LOXL1 Knockout Mice: Potential Therapy for Pelvic Organ Prolapse. *Neurourology and Urodynamics* **31**(2): 243.
- Sajadi, K.P., D.L. Lin, B.M. Couri, C. Dissaranan, H.-H. Jiang, B. Balog, J.M. Kerns, **M.S. Damaser** (2011) Pudendal Nerve Stretch Reduces External Urethral Sphincter Activity in Rats. *Proceedings of the International Continence Society*.
- Zutshi, M., L. Salcedo, **M. Damaser**, M. Kiedrowski, M. Mayorga, M. Penn (2011) Serial IV infusions of stem cells cause sustained anal pressure improvement after anal sphincter injury. *Neurourology & Urodynamics* **30**(6): 1100-1101.
- Damaser, M.S.**, M. Cruz, C. Dissaranan, A. Coteleur, M. Kiedrowski, M. Penn, H.B. Goldman (2011) Intravenously injected mesenchymal stem cells home to pelvic organs after simulated childbirth injury. *Neurourology & Urodynamics* **30**(6): 1101-1102.
- Majerus, S.J.A., P.C. Fletter, P. Zaszczurynski, H. Zhu, **M. Damaser**, S. Garverick (2011) In vivo demonstration of an implantable bladder pressure sensor in an ambulatory canine subject. *Point-of-Care Technologies Research Network Symposium*.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Spirka, T., K. Kenton, L. Brubaker, **M. Damaser** (2011) Pathway to Finite Element analysis of Stress Urinary Incontinence Mechanics. *Proceedings of the ASME 2011 Summer Bioengineering Conference*.
- Sajadi, K.P., D.L. Lin, B.M. Couri, C. Dissaranan, H.-H. Jiang, B. Balog, J.M. Kerns, **M.S. Damaser** (2011) Pudendal nerve stretch reduces external urethral sphincter activity in rats. *Proceedings of the International Urogynecology Association*.
- Dissaranan, C., M.Cruz, B.M.Couri, R. Juarez Mendieta, B.M. Balog, L. Salcedo, B. Gill, M. Kiedrowski, M.S. Penn, H.B. Goldman, **M.S. Damaser** (2011) Mesenchymal stem cells facilitate recovery after simulated childbirth injury via secreted factors. *Proceedings of the International Urogynecology Association*.
- Dissaranan, C., M. Cruz, B. Gill, L. Salcedo, A. Coteleur, R. Mendieta, B. Balog, M. Kiedrowski, M. Penn, H. Goldman, **M.S. Damaser** (2011) Intravenous mesenchymal stem cells home to the urethra and facilitate recovery from stress urinary incontinence after childbirth injury via local secretion of paracrine factors. *Journal of Urology*. **186**(4S): e73.
- Steward, J., B. Gill, M. Cruz, C. Dissaranan, H.-H. Jiang, D.L. Lin, B. Balog, **M.S. Damaser** (2011) Neuroregenerative Treatment after Simulated Childbirth Injury Increases Expression of Brain Derived Neurotrophic Factor in the External Urethral Sphincter of Rats. *Journal of Urology*. **186**(4S): e316-e317. **This poster won the award for best presentation of the session at the American Urological Association annual meeting.**
- Fletcher, P., S. Majerus, H. Zhu, A. Boger, S. Garverick, K. Gustafson, **M.S. Damaser** (2011) Feasibility of submucosal bladder pressure sensing. *Journal of Urology*. **186**(4S): e317-e318.
- Fletcher, P., S. Majerus, A. Boger, K. Gustafson, S. Garverick, H. Zhu, **M.S. Damaser** (2011) Feasibility of submucosal bladder pressure sensing. *Neurourology & Urodynamics* **30**(2): 241.
- Jiang, H.H., O. Kokiko-Cochran, K. Li, **M.S. Damaser**, Y.S. Lee (2011) Acute effects of bladder and rectal function after traumatic brain injury in rats. *Neurourology & Urodynamics* **30**(2): 230-1.
- Dissaranan, C., B. Gill, M. Cruz, L. Salcedo, B. Balog, M. Kiedrowski, M. Penn, H.B. Goldman, **M.S. Damaser** (2011) Intravenous mesenchymal stem cells facilitate recovery from stress urinary incontinence after childbirth injury. *Neurourology & Urodynamics* **30**(2): 235.
- Jiang, H.H., B. Gill, L. Salcedo, P. Zaszczurynski, B. Balog, D.L. Lin, **M.S. Damaser** (2010) Neuroregenerative response in Onuf's nucleus after acute pudendal nerve stimulation in rats with simulated childbirth injury. *Proceedings of the Annual Meeting of the Society for Neuroscience*.
- Gill, B.C., H.-H. Jiang, C. Dissaranan, B.M. Balog, D.L. Lin, **M.S. Damaser** (2010) Molecular assessment of peripheral nerve regenerative response - Results from Onuf's nucleus after pudendal nerve crush. *Proceedings of the Annual Meeting of the Society for Neuroscience*.
- Dissaranan, C., B.C. Gill, B.M. Balog, H.-H. Jiang, H.B. Goldman, **M.S. Damaser** (2010) Supplemental neurotrophins improve functional recovery after simulated childbirth injury. *Proceedings of the Annual Meeting of the Society for Neuroscience*.
- Jiang H.H., C. Dissaranan, B. Gill, L. Salcedo, H. Goldman, **M.S. Damaser** (2010) Effect of Simulated Childbirth Injury and Subsequent Pudendal Nerve Stimulation on Bladder and Anal Contractile Function. *Neurourology & Urodynamics* **29**(6): 1069-1070.
- Jiang, H.H., B. Gill, L. Salcedo, P. Zaszczurynski, B. Balog, D.L. Lin, **M.S. Damaser** (2010) Pudendal Nerve Stimulation for Simulated Childbirth Injury Increases Neurotrophins Expression in Onuf's Nucleus. *Neurourology & Urodynamics* **29**(6): 1106-1108.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Gill, B., C. Dissaranan, H.H. Jiang, B. Balog, D.L. Lin, H.B. Goldman, **M.S. Damaser** (2010) Effects of Neurotrophin Supplementation on Functional Recovery of the Pudendal Nerve Following Simulated Childbirth Injury. *Proceedings of the International Continence Society*.
- Wang, G., B. Watschke, E. Koullick, H.H. Jiang, P. Zaszczurynski, **M.S. Damaser** (2010) Peri-urethral Electromyography Recorded Using the Stimulated Electrode of an Implantable Stimulation Device (AccessaTM) in Rats. *Proceedings of the International Continence Society*.
- Dissaranan C., B.C. Gill, H.-H. Jiang, B.M. Balog, H.B. Goldman, **M.S. Damaser** (2010) Supplemental neurotrophins improve functional recovery after simulated childbirth injury. *Proceedings of the 2010 American Urological Association Foundation/Society of Basic Urological Research Summer Research Conference on Urinary Incontinence: Integrating Basic & Clinical Research Perspectives*.
- Jiang, H.-H., B. Gill, L. Salcedo, P. Zaszczurynski, B. Balog, D.L. Lin, and **M.S. Damaser** (2010) Acute pudendal nerve stimulation after simulated childbirth injury increases expression of neurotrophins in Onuf's nucleus. *Proceedings of the 2010 American Urological Association Foundation/ Society of Basic Urological Research Summer Research Conference on Urinary Incontinence: Integrating Basic & Clinical Research Perspectives*. **This poster won the award for best poster presentation of the meeting.**
- Lenis, A., B. Kinley, D.L. Lin, and **M.S. Damaser** (2010) The Role of Simulated Human Childbirth Injuries in a Lysyl Oxidase Like-1 Knockout Mouse Model of Pelvic Organ Prolapse. *Journal of Urology*. **183**(4S): e535.
- Jiang, H.H., B. Gill, L. Salcedo, P. Zaszczurynski, B. Balog, D.L. Lin, and **M.S. Damaser** (2010) Electrical Stimulation of the Pudendal nerve Increases the Expression of Neurotrophins in Onuf's Nucleus Following Simulated Childbirth Injury. *Journal of Urology*. **183**(4S): e643-4.
- Jiang, H.H., B. Gill, D.L. Lin, J. Glaab, B. Kinley, and **M.S. Damaser** (2010) Effects of Obesity and Type 2 Diabetes on recovery from Pudendal Nerve Injury in Female Zucker Rats. *Journal of Urology*. **183**(4s): e681-2. **This poster won the award for best presentation of the session at the American Urological Association annual meeting.**
- Szugye N.A., P.C. Fletter, and **M.S. Damaser** (2010) Effects of Implant Geometry on Bladder Pressure Transduction in the Submucosa. *Neurourology and Urodynamics*. **29**(2): 244.
- Jiang, H.-H., B.C. Gill, D.L. Lin, J.B. Glaab, B.I. Kinley, and **M.S. Damaser** (2010) Effects of obesity and Type 2 Diabetes on Recovery from Pudendal Nerve Injury in Female Zucker Rats. *Neurourology and Urodynamics*. **29**(2): 251. **This poster won the award for best presentation of the session.**
- Lee, U., A.M. Gustilo-Ashby, M. Kuang, D.L. Lin, and **M.S. Damaser** (2010) Stem Cell Homing Cytokine Upregulation in Lysyl Oxidase Like 1 (LOXL1) Knockout Mice after Vaginal Distension. *Neurourology and Urodynamics*. **29**(2): 253-254.
- Jiang, H.-H., B.C. Gill, L. Salcedo, P. Zaszczurynski, B.M. Balog, D.L. Lin, and **M.S. Damaser** (2010) Effects of Electrical Stimulation of the Pudendal Nerve on Expression of Neurotrophins in Onuf's Nucleus Following Simulated Childbirth Injury. *Neurourology and Urodynamics*. **29**(2): 254-255.
- Gill, B.C., H.-H. Jiang, B.M. Balog, A.S. Nowacki, and **M.S. Damaser** (2010) Effects of Neurotrophin Supplementation on Functional Recovery of the Pudendal Nerve following Simulated Childbirth Injury: Preliminary Results. *Neurourology and Urodynamics*. **29**(2): 255.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Jiang, H.-H., J. Clemons, B.M. Balog and **M.S. Damaser** (2010) External Urethral Sphincter Electromyography after Simulated Childbirth Injury with Recovered Leak Point Pressure. *Neurourology and Urodynamics*. **29**(2): 258.
- Fletter P.C., S.J. Majerus, P. Cong, W.H. Ko, D.J. Young, S.L. Garverick, and **M.S. Damaser** (2009) Wireless Ambulatory System for Chronic Bladder Pressure Monitoring. *Proceedings of the Biomedical Engineering Society*.
- Szugye N.A., Fletter, P.C., **Damaser, M.S.** (2009) The Effect of Implant Geometry on Pressure Transduction in the Submucosal Layer of the Bladder. *Proceedings of the Biomedical Engineering Society*.
- Spirka T., K. Kenton, R. Butler, **M. Damaser**, and L. Brubaker (2009) Urodynamic Ratios: A Novel Consideration for Female Stress Continence. *Proceedings of the International Continence Society*.
- Spirka T., K. Kenton, L. Brubaker, and **M. Damaser** (2009) A clinically-relevant model of stress urinary incontinence: What is the effect of material properties on the finite element simulation of the bladder, urethra, and support structures during a cough. *Proceedings of the International Continence Society*.
- Lee U., A.M. Gustilo-Ashby, M. Kuang, and **M. Damaser** (2009) Stem Cell Homing Cytokine Upregulation in Lysyl Oxidase Like 1 (LOXL1) Knockout Mice after Vaginal Distension. *Proceedings of the International Continence Society*.
- Jiang, H.H., L. Salcedo, P. Zaszczurynski and **M. Damaser** (2009) Bladder Viscoelasticity Contributing to Urinary Continence. *Proceedings of the International Continence Society*.
- Zutshi, M., L. Salcedo, L. Lian, H.H. Jiang, and **M. Damaser** (2009) Low voltage electrical stimulation causes cytokine expression in the anal sphincter. *Proceedings of the International Continence Society*.
- Zutshi, M., L. Salcedo, M. Penn, M. Mayorga, T. Hull, and **M. Damaser** (2009) Mesenchymal stem cells improve functional outcome after anal sphincter injury in an animal model. *Neurourology & Urodynamics* **28**(7): 884-885.
- Awada, H., P. Fletter, M. Cooper, P. Zaszczurynski, and **M. Damaser** (2009) Performance of Disposable Pressure-sensing Catheters during Simulated Urodynamic Events. *Neurourology & Urodynamics* **28**(7): 855-856.
- Kong, W., D. Lin, B. Kinley, J. Kerns, and **M. Damaser** (2009) Urethral neuromuscular injury following simulated childbirth injury in a rat model. *Neurourology & Urodynamics* **28**(7): 597-598. **This presentation won the award for best Basic Science Presentation of ICS 2009.**
- Salcedo L.B., L. Lian, **M. Damaser**, P. Zaszczurynski, and M. Zutshi (2009) Low voltage electrical stimulation causes cytokine expression in the anal sphincter. *Proceedings of the American Colorectal Research Society*.
- Spirka T., K. Kenton, L. Brubaker, and M. Damaser (2009) Effect of material properties on a clinically relevant model of stress urinary incontinence. *Proceedings of the American Urogynecologic Society*.
- Spirka T., K. Kenton, M. Damaser and L. Brubaker (2009) Urodynamic ratios: Timing indicates susceptibility to leakage. *Proceedings of the American Urogynecologic Society*.

RECENT PEER-REVIEWED ABSTRACTS, continued

- Fletter P.C., S. Majerus, P. Cong, **M.S. Damaser**, W.H. Ko, D.J. Young and S.L. Garverick (2009) Wireless micromanometer system for chronic bladder pressure monitoring. *Proceedings of the International Symposium on Signals and Systems*.
- Fletter P.C., H. Awada, M. Cooper, P.J. Zaszczurynski, and **M.S. Damaser** (2009) Comparison of weighted and nonweighted media for measurement of urodynamic pressures. *International Urogynecology Journal*. **20** (Suppl 3): 302-303.
- Spirka T., K. Kenton, L. Brubaker, and **M. Damaser** (2009) Urodynamic Cough Simulation: Effect of Material Properties. *Proceedings of the XII International Symposium on Computer Simulation in Biomechanics*.
- Lee, U., A.M. Gustilo-Ashby, D. Vurbic, D. Syptert, F. Daneshgari, M. Barber, and **M.S. Damaser** (2009) Cesaerean Section Delays the Development of Pelvic Organ Prolapse in Lysyl Oxidase Like-1 Knockout Mice. *Journal of Urology*. **181**(4S): 482.
- Pan, H.Q., D.L. Lin, D. Syptert, J. Steward, P. Zaszczurynski, R.S. Butler, C.R. Hoover, J.M. Kerns, and **M.S. Damaser** (2009) Dual injury animal model of maternal childbirth injuries. *Journal of Urology*. **181**(4S): 558.
- Gasbarro, G., D.L. Lin, M. Quisno, B. Kinley, D. Hansel, F. Daneshgari, and **M.S. Damaser** (2009) Voiding Function in a Zucker Diabetic Fatty Rat Model of Simulated Childbirth. *American Urological Association Annual Meeting*.
- Kong, W.G., D.L. Lin, J.M. Kerns, and **M.S. Damaser** (2009) Neuroanatomical Effects of Simulated Childbirth Injuries in the External Urethral Sphincter. *Journal of Urology*. **181**(4S): 614. **This poster won the award for best presentation of the session at the American Urological Association annual meeting.**
- Cooper, M., P. Zaszczurynski, P. Fletter, and **M.S. Damaser** (2009) Comparison of Weighted and Weightless Transduction Mediums for use in Urological Catheter Manometer Systems. *Neurourology & Urodynamics* **28**(2): 162.
- Lee, U., A.M. Gustilo-Ashby, D. Vurbic, D. Syptert, F. Daneshgari, M. Barber, and **M.S. Damaser** (2009) Cesarean Section Delays the Development of Pelvic Organ Prolapse when Compared to Spontaneous Vaginal Delivery in Lysyl Oxidase Like-1 Knockout Mice. *Neurourology & Urodynamics* **28**(2): 116.
- Jiang, H.-H., P. Zaszczurynski, **M.S. Damaser** (2009) Factors Affecting Urethral Resistance in Normal Female Rats. *Neurourology and Urodynamics*. **28**(2): 116-117.
- Kong, W.G., D.L. Lin, A. Vasanji, **M.S. Damaser** (2009) Microscopic Description of Acetylcholine Receptors in Rat Urothelium. *Neurourology and Urodynamics*. **28**(2): 110.